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ABSTRACT

This publication analyzes results of studies of educational policy and planning problems in Greece, Portugal, and Turkey. It is part of a project sponsored by the Organization for Economic Cooperation and Development (OECD) to increase understanding of the way in which educational systems function. The project examined existing structures; policy- and decision-making mechanisms; control of resources and information; and the relationships among educational subsystems and the social environment. As part of the project, Greece, Portugal, and Turkey examined decision-making mechanisms at various levels within their own educational systems. See SO 011 255 for details of the country reports. In this volume, part I presents the conceptual framework for educational decision-making within which the three countries examined their own mechanisms. Part II reviews educational development trends and planning characteristics in certain OECD member countries and analyzes the three country projects in terms of the decision-making framework. Part III explores structural aspects of educational administration in terms of the Turkish project. In part IV an attempt is made to draw some general planning implications as they emerge from the experience in the three countries. (RM)

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DECISION-MAKING IN EDUCATIONAL SYSTEMS

The Experience in Three OECD Countries

Country projects: Synthesis and Evaluation

Volume I

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Paris 1977

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CONTENTS

	Page
Preface	1
PART I	
INTRODUCTION	4
A. Educational Planning and Policy Decision-Making Dichotomy	4
B. The Proposed Conceptual Decision-Making Framework	6
1. Introduction	6
2. The Normative Sub-System	7
3. The Strategic Sub-System	9
4. The Operational Sub-System	11
5. The Administrative Sub-System	12
PART II	
THE COUNTRY PROJECTS	15
A. Introduction: Educational Planning in the Three Countries	15
B. Normative Decision-Making Level	16
1. Introduction	16
2. The Greek Project: The Goal Setting Sub-System	17
C. Strategic Decision-Making Level	20
1. Introduction	20
2. The Portuguese Project: The Planning Phase	21
D. Operational Decision-Making Level	27
1. Introduction	27
2. The Greek Project: The Financing Sub-System	28
3. The Portuguese Project: The Programming Phase	31
E. Administrative Decision-Making Level	31
The Greek Project: The "Decision-Making" Sub-System	31
PART III	
THE STUDY OF ADMINISTRATIVE STRUCTURES	35
The Turkish Project: Regional and Local Administrative System	35
PART IV	
CONCLUSIONS AND RECOMMENDATIONS	43
A. Findings	43
1. Shortcomings	43
2. Responsible Factors	44
B. Implications for Planning	45

PREFACE

This book reports on an OECD study of educational policy and planning problems in developing Member countries, carried out under the Programme of Work of the Education Committee. The principal aim of this multi-country activity was to enable Member countries to identify quantitative and qualitative problem areas, and to assist them in undertaking appropriate reforms during this decade.

The study had three distinct but inter-related phases. During the first phase, which was largely diagnostic, emphasis was given to increasing understanding of the way in which education systems function. The conceptual tool used for this was system analysis.(1) This diagnostic work revealed the existing structures, the policy and decision-making mechanisms, the flow of people, resources and information and the ways in which they are controlled, the relationships among the various parts (sub-systems) of the education system, and between the education system and its general social environment.

The study of specific problem areas identified during phase one was to constitute the second phase of the study.

In the third phase of the project, the countries were to consider the improvement of existing policy/decision-making and planning mechanisms, at various levels. They were also to look at proposals for institutional and/or other types of changes to be introduced into the education system so that they might continue to grow and successfully meet the educational needs of individuals and of the various social systems.

A briefing meeting was held in Paris on 17th and 18th December, 1970, at which five Member countries, notably Greece, Portugal, Spain, Turkey and Yugoslavia were invited to participate. Three of them - Greece, Portugal and Turkey - agreed to participate in the activity. It became clear at this and subsequent meetings that the authorities from each country felt that they had already completed what was to be the first phase of the project. It was, therefore, agreed to start with phase two.

In the light of the specific interests, priorities and views expressed by these countries, the Programme of Work in each of them was defined as follows:

Greece: Analysis and evaluation of the decision-making systems: how decisions are taken at all levels and whether the decision-making process at each major decision point is "satisfactory".

Portugal: Assessment of the human and material resource implications for the implementation of a new structure of the educational system (excluding the post-secondary level).

Turkey: Study of the existing administrative structure of the public educational system at the regional and local levels.

A national team was nominated to carry out the work in each country with the support of the OECD and the relevant government authorities. The teams worked in close collaboration with the OECD Secretariat and two of them, the Greek and Portuguese, were

1) OECD, "Systems Approach to Educational Planning and Management" (Working Document).

assisted in various stages of the work by outside consultants who were provided with the help of the Technical Co-operation programme of the OECD (TECO). During the final stage of the projects, the teams were given the opportunity to present their work to date, discuss the major problems with which they were confronted and the solutions they proposed, and receive ideas and suggestions for further work at a Project Leaders meeting held in Paris on 12th and 13th October, 1972.

Shortened versions of the three main reports are given in Volume II of the present publication. The purpose of the present volume which has been prepared by Mr. C. Soumelis of the Secretariat, is to offer a critical discussion of the three country projects. Although an effort is made to make this volume self-contained to the extent possible, it is advisable to read it in conjunction with Volume II.

It was clear from the outset that the three country projects constitute parts of the overall educational planning effort and cover an extensive part of the educational planning/decision-making spectrum. It was, therefore, thought useful to discuss the projects by placing them within an overall conceptual planning/deciding framework, relating each project to the particular decision-making level it attempted to cover.

The decision-making conceptual framework within which the three projects are discussed is presented in Part I(1). In this framework decisions are distinguished into various functionally hierarchical levels. Four such levels are presented: the normative, the strategic, the operational and the administrative. Planning, as well as control, are seen as inseparable functions of decision-making.

Part II starts with a brief introductory discussion of the main educational development trends and planning characteristics in the Mediterranean Member countries. The country projects are then placed within the decision-making conceptual framework and they are discussed with reference to the particular decision-making levels in which they fall (Table 1).

In Part III the structural aspects of the educational administrative set-up are discussed in the light of the Turkish project. An effort is made here to broaden the discussion with a view to covering issues related to the general problem of centralization versus decentralization.

In the concluding Part IV an attempt is made to draw some general planning implications as they emerge from the experience in the three countries, assuming that the nature of their educational systems will not change drastically in the years to come.

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(1) This conceptual framework is a synthesis of several similar frameworks described in the relevant literature; it draws, however, most heavily on the model developed by Ozbekhan and presented in his article "Toward a General Theory of Planning" in E. Jantsch (ed) Perspective of Planning. OECD, Paris 1969. A shortened version of the framework was first presented in C. Somelis, "Planning Decision and Control in Social Systems" in Jo Rose (ed), Advances in Cybernetics and Systems, Gordon and Breach Ltd., London, 1974.

Table 1

THE COUNTRY PROJECTS IN RELATION TO VARIOUS PLANNING LEVELS

Levels of Planning	GREECE	PORTUGAL	TURKEY
Policy-Setting	"The Goal-Setting Sub-System".		
Strategic Planning	Planning Considerations "The Decision-Making Sub-system" (Evaluation of the Administrative Decision-Making).	"Resource implications for implementing a new educational system". (Long and Medium Educational Plan: PPBS: Interface with the Central Planning Office.)	"Evaluation and (Re) design of the Regional and Local Educational Administrative Systems". (Interface with the Central Educational Administrative structure and with those of the Ministry of the Interior).
Operational Planning	"The Financing Sub-System". (Annual Budgetary Process: Interface with the Ministry of Finance).	Short-term planning (Annual Budget)	
Administrative Decision-Making	Actual Performance of the Administrative sub-system.		Actual Performance of the Regional and Local Administrative Sub-Systems.

Part I

INTRODUCTION

A. Educational Planning and Policy Decision-Making Dichotomy

Educational planning has been the subject of a great deal of attention in OECD Member countries in recent years. Planning groups have been set up and much re-structuring of departments has taken place. Significant changes have also occurred in the evolution of planning concepts, though the specific contribution by planners to policy making is not easy to define(1). In the Mediterranean Member countries, in particular, planning capacity has not been commencerate with the size and nature of the problems confronting their educational systems.

During the period of rapid educational expansion in the 60s and early 70s, educational planning efforts were mainly devoted to "forecasting" the number of enrolments in different parts of the educational system in relation to the number of needed manpower for the envisaged socio-economic development in each country. This forecasting activity was influenced by two well-known approaches to educational planning, viz the "social demand" and "manpower planning" approaches(2). Although much effort has been put into perfecting these approaches, the forecasts have usually proved wrong, and often by such a margin as to substantially discredit the underlying rationale in the eyes of policy-makers.

Certainly the problem of integrating long-term planning with policy decisions which, of necessity it seems, must be taken in the short-run, has never been successfully overcome. In most cases, planning groups have grown and operated quite independently of the actual policy/decision-making process. The resulting dichotomy seems to have been accentuated, in most countries, either by "ideological" reasons or by the development of administrative/planning structures which do not facilitate the effective communication between formal decision-makers and "planners". This communication gap occasionally has been reduced through positive interpersonal communication, but this has never been enough to make up in the long-run for the existing lack of formal communication.

The "ideological" reasons are usually an outcome of accepted definitions of planning. The literature usually refers to planning as a process for preparing a set of decisions, to be taken by somebody else, for achieving objectives and/or goals which

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1) For a general evaluative discussion on developments in educational planning and policy in OECD countries, see: G. Williams, "Educational Policies, Plans and Forecasts during the Nineteen-Sixties and Seventies" in The Development of Educational Planning, OECD, Paris 1971.

2) A third approach known as the "rate-of-return" approach has had little or no effect on the Mediterranean countries, which at an early stage were mainly influenced by the manpower approach. Later social demand (and not investment) considerations began discussion on the various educational planning approaches, see J-P. Jallade, "Educational Planning Methods" in The Development of Educational Planning, op. cit.

have been set independently outside the planning activity.(1) The separation of planning from the formal decision-making process when it has occurred, has often resulted in the development of a feeling of mistrust and competition between the individuals given formal authority (the "decision-makers") and those producing the policy options (the "planners"). Conceptually the two functions are, of course, part of the same process and presumably this should, as far as possible, be reflected in practice. In essence, a decision, i.e. the end-product of a "deciding process", cannot be separated from the functions of "planning" and "control". In other words, the taking of any decision requires deliberation about the nature and relevance of the decision, its eventual results, its feasibility, etc. This deliberation, which in the individual constitutes the thinking (problem-solving) process(2) will be called here "planning". Planning, therefore, can be viewed as the mental process which precedes the taking of a decision.

It involves the collection and processing of all relevant information and its successful application to the objective (or problem) at hand in order to arrive at a decision which "best"(3) facilitates the attainment of the objective. A final decision may eventually be communicated to the interested parts of the system through an authorised channel - the effector, who, however, should not be seen as solely responsible for it.

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1) In the literature there are several attempts to separate planning from decision-making. For example, Dror draws a sharp distinction by writing that "Planning is substantially a process of preparing a set of decisions to be approved and executed by some other organ. Even if the same unit combines planning functions with authority to approve and execute, these are distinct, though interdependent, processes which must be kept analytically separate" (Ventures in Policy Sciences, American Elsevier Publishing Co. Inc., N.Y. 1971, p. 106). Anderson and Bowman both accept Dror's definition, as well as the distinction he draws between planning and approving, although they do find it "in some ways troublesome" (C.A. Anderson and M.J. Bowman, "Theoretical Considerations in Educational Planning" in Blaug, M. (ed.), Economics of Education 1, Penguin Books, 1968, pp. 351, 355). G. Williams also suggests that "it is the job of the planner to show the costs and benefits of different policy decisions, it is the job of the policy-maker to choose between them having been shown a wide range of options". (G. Williams, op. cit., p. 12). What makes the situation troublesome is exactly this distinction between "planning" (i.e. the process of preparing a set of decisions) and "deciding" (approving the set of decisions which planning has prepared). Since, as Dror himself puts it "the planning process cannot operate unless it has more or less defined goals towards the achievement of which its recommendations for action in the future are directed" (Dror. op. cit. p. 107), the problem always lies in the type of criteria the "decider" will use to select, approve or disapprove the set of decisions prepared by planning, as well as in his capacity to process all necessary information in order to make a successful judgement and to take (approve) the "best" decision. In any case, it is clear that "approving" requires all the mental operations necessary for planning, thus duplicating planning in actuality: it is "replanning" with limited information processing capabilities. It also runs the risk of completely suppressing the influence of the decision on the course of affairs: i.e. its feedback effect on the factual information. (See e.g. p. Alper, "S.O.M. and Control Theory" in The Use of Simulation Models in Educational Planning: A Critical Evaluation of S.O.M., OECD, CERI, Paris 1971.

2) See e.g. Newell, H. Shaw, J.C., and Simon, H.A. "Elements of a Theory of Human problem Solving". Psychol. Ref. 1958, 65. 151-166., where the "Thinker", i.e. the individual solving problems, is regarded as an information processing system.

3) "Best" (or satisfying) in the context of this paper has been preferred to such objective concepts as "optimum" and/or "maximum" in order to allow for subjective judgement where value judgement is involved. A strategy is "best" when it satisfies all those concerned and, of course, it contributes to the attainment of the system's objectives.

The constant intervention of what are called "political" factors is another constraint on many planning activities being effective in the policy process. Many policy decisions are taken independently of the planning process because they are "political" decisions, taken by the authorities in power, and frequently not based on criteria that can be "rationalised". Such criteria are also frequently undisclosed. A second preoccupation, therefore, in this report relates to the various types of decisions taken at various systemic levels and their integration. As planning is directly linked to decision-making, it is necessary to distinguish decisions in terms of the system's level at which they are taken. Although the "deciding process" is a homogeneous one, it can be decomposed into functionally hierarchical decision-making sub-systems. The decisions made at each of these are characterised by a different degree of generality as also are associated planning activities. It is therefore possible to decompose the overall planning process into planning sub-systems corresponding to the decision-making sub-systems.(1) These sub-systems are integrated through continuous "feedbacks" as will be discussed below.

The decision-making conceptual framework, presented in the next chapter, within which the country projects will be discussed, is based on two basic principles: planning is directly linked to decision-making and the various planning activities correspond to various functionally integrated decision-making levels. It is hoped that in this way it would be possible to present and discuss a comprehensive and realistic view of planning and decision-making, which may provide a possible conceptual model for helping overall planning activities as well as the organisation and integration (vertical as well as horizontal) of planning/decision-making structures.

B. The Proposed Decision-Making Conceptual Framework

1. Introduction

The decision-making conceptual framework which was chosen for the presentation and discussion of the three planning projects under consideration incorporates four functionally hierarchical decision-making sub-systems: namely the Normative, Strategic, Operational and Administrative sub-systems.(2) These four decision-making sub-systems, which do not necessarily imply any structural hierarchy, represent four classes of decisions, conceptually integrated, into which a human social system such as the

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1) It is obvious that as one moves from the normative downwards to the administrative level, the importance of planning and control functions reverses itself. Planning is more important at higher levels while control becomes more important at the lowest levels. This should not be interpreted to mean that control does not or should not exist at the normative level and that planning ceases to exist at the administrative level. It rather means that control has more importance at the lowest level in order to check the result of actual action with the system's objectives and goals and that at this level because of the routine nature of the decisions, planning is not necessary, but some deliberation even at this level always exists. This is perhaps the main reason why most of the authors restrict planning to the upper three levels: i.e. normative, strategic and operational. According to the definition we are adopting here we have no problem extending logically planning to the administrative level, keeping in mind its relative importance and nature.

2) Ozbekhan, op. cit., pp. 132-142. Other authors have also proposed a multi-level concept using somewhat different terminology, e.g. Policy, Strategic, Tactical and Administrative levels (see articles by Forrester, Ansoff, Brandenburg and Jantsch in Jantsch (ed.) op. cit.). In some cases one or more of these levels are broken down into additional sub-levels, as it proposed, e.g. by S. Beer in his article in Jantsch (ed.), op. cit. Beer presents a five-tier hierarchy by decomposing the Administrative level in two tiers for the control of action and action itself.

educational system may be engaged at any time. Each of the four classes of decisions is characterised by a different degree of generality, ranging from the normative decisions which are the most general to the administrative decisions which are the most precise. The basic process which takes place at each of the four decision-making levels is a continuous reduction of the degrees of freedom implied in a particular decision which was made at the previous level. This shows the high degree of interdependence which exists among these four decision-making sub-systems, and the constraining effect of a preceding sub-system upon the lower one. If, for example, a particular part of the educational system (e.g. a particular educational office) is engaged, at a particular time period, in an operational type of decision, this means that this type of decision is, or should be, taken in accordance with some related strategic and normative decisions, which were taken either by other parts of the educational system or by the same part in a preceding time period.(1) Normative decisions are used as guidelines for strategic decisions (i.e. become inputs to the strategic sub-system), strategic decisions in turn become inputs to the operational sub-system, and operational decisions become inputs to the administrative sub-system (Diagram 1). Administrative decisions, which are usually called "routine" decisions, aim at clarifying, when necessary, the operational decisions and lead directly to the execution of the implied action for implementing the systems objective.

One can visualise much better the implied interdependence of the four classes of decisions if one observes the decision-making process of a human being. This involves all four levels of decision-making, each one characterised by a different degree of generality and abstractness until the actual act is taking place. In this case all four types of decision are made by one and the same structural entity. In large and complex human social systems, however, and for reasons of division of labour, each of the above four classes of decisions may be carried out by different structural components (Diagram 1). Each of the four decision-making sub-systems enjoys a different degree of "autonomy". Autonomy of a system is directly related to its ability to exercise self-control over all the four classes of its own decisions.

2. The Normative Decision-Making Sub-Systems

At the normative level, decisions of a rather general nature about the overall orientation and objectives of the educational system are taken, which in turn serve as guidelines for the making of all other types of decisions, controlling in this way the educational system's behaviour. Objectives set at this level are directly related to the purpose(2) of the educational system and they reflect the educational needs and concerns of all other social systems as well as individuals.

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1) This is usually true in "autonomous" educational offices which are responsible for all types of decisions.

2) Following Ozbekhan, a hierarchical distinction is made among "purposes", "objectives" and "goals". Purpose is the most general concept and refers to the intension to do something as well as the function for which anything exists and it characterised the existence of the system. Objective is a less general concept which assumes a causal relationship between intended result and action. Goal is the least general concept and refers to a particular and specific object which is taken to be the reason for a particular action. In the literature the word "Target" is also used, usually with a very specific quantitative connotation. According to the above definitions, the purpose of a system cannot be changed since, through it, the system's existence is explained. What can be changed are both the objectives and the goals of the system. H. Ozbekhan, op. cit. p. 125.

The outcome of the normative decision-making sub-system is, therefore, policy decisions which give directions as to where the overall system should go providing at the same time some normative indications as to the "oughts", which should govern the behaviour of the various parts of the system. In other words, at the normative decision-making level, two main sets of decisions are taken: first, decisions as to the general "philosophy" of the education system, and second, decisions as to what norms should be selected and/or invented to be used in the development of policies (solutions) that meet the specific problems confronting the education system. Normative planning is primarily an exercise of value judgement to determine what "ought" to be done in the face of a particular situation.(1)

Since the philosophy (a set of policy-objectives) of the educational system and its behavioural norms are developed and set as the "wills" of the system, they are constrained only by: (a) the overall socio-political value system (i.e. the norms of educational system's supra-system), (b) the educational system's "survival" and "well-being" objectives, and (c) the educational needs of the society at large. On the contrary technological, financial and other resource type of constraints should not affect the expression of the "will" of the system. Such constraints, as will be discussed below, will be certainly considered when setting the specific goals. The system, however, may decide in the long-run to change its fixed inputs in order to facilitate the attainment of its willed objectives (preferred future). Whether the system will ultimately succeed in changing its fixed inputs and to what degree, is yet to be seen. This is largely based on its ability to secure the necessary support, either directly from its "clients" or from its supra-system, depending on how the system renders its service.

The second problem, which is more of a communication and control type, relates to ensuring that all lower decisions (i.e. the behaviour of the various parts of the system) will be taken in accordance both to the philosophy of the system and to the system's norms set up at the normative level. Because of the internal dynamics and behavioural characteristics, however, of complex systems(2), the various sub-systems (systems in themselves) tend to develop an increased autonomy vis-a-vis their supra-system. And as they are resistant to policy changes, there will be a need for both a strong executive power as well as a very powerful strategic concept to fight this trend unless the various sub-systems are effectively integrated so that their inherent desire for increased autonomy is consciously reduced.

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1) Ozbekhan, op. cit. p. 140.

2) According to Forrester, the following are the characteristics of complex systems:

1. Their behaviour appears counter-intuitive to the average person.
2. A remarkable insensitivity to changes in many of the system parameters.
3. Their recalcitrant resistance to policy changes.
4. A high sensitivity to a few parameters and a sensitivity to some changes in structure.
5. A frequent condition of delicate balance between the forces of growth and decline.
6. We can expect that they will drift to a low level of performance.

J. Forrester, "Planning Under the Dynamic Influences of Complex Social Systems", in Jantsch, op. cit. pp. 240-242.

3. The Strategic Decision-Making System

The outcomes of the normative decision-making sub-system, as was said earlier, are high-order policy decisions (objectives) to give direction as to where the educational system ought to go and what norms should be used by the lower decision-making levels in their taking of related decisions.

The attainment of these high order policies, however, may be ensured through a wide range of alternative strategies. An objective, for example, such as "equality of opportunity", which is subject to a variety of interpretations, can be achieved in various ways. It is necessary therefore, that this generality and ambiguity contained in the high-order policies, be reduced, and the objective be translated into a set of more specific goals. This work is the responsibility of the strategic decision-making sub-system.

The main inputs entered into the strategic sub-system are (a) the output of the normative sub-system (i.e. high order policies and norms) and (b) various types of constraints such as available technology, prevailing financial restrictions, the educational system's existing structure and capacity etc. These constraints are taken into account, not only to indicate the range of possibilities for strategic decisions, but also to identify the extent to which evaluation is possible. The latter is essential for the eventual modification of the high-order policies. This operation provides the educational system with the opportunity to indicate desired (and necessary) changes in its fixed inputs.

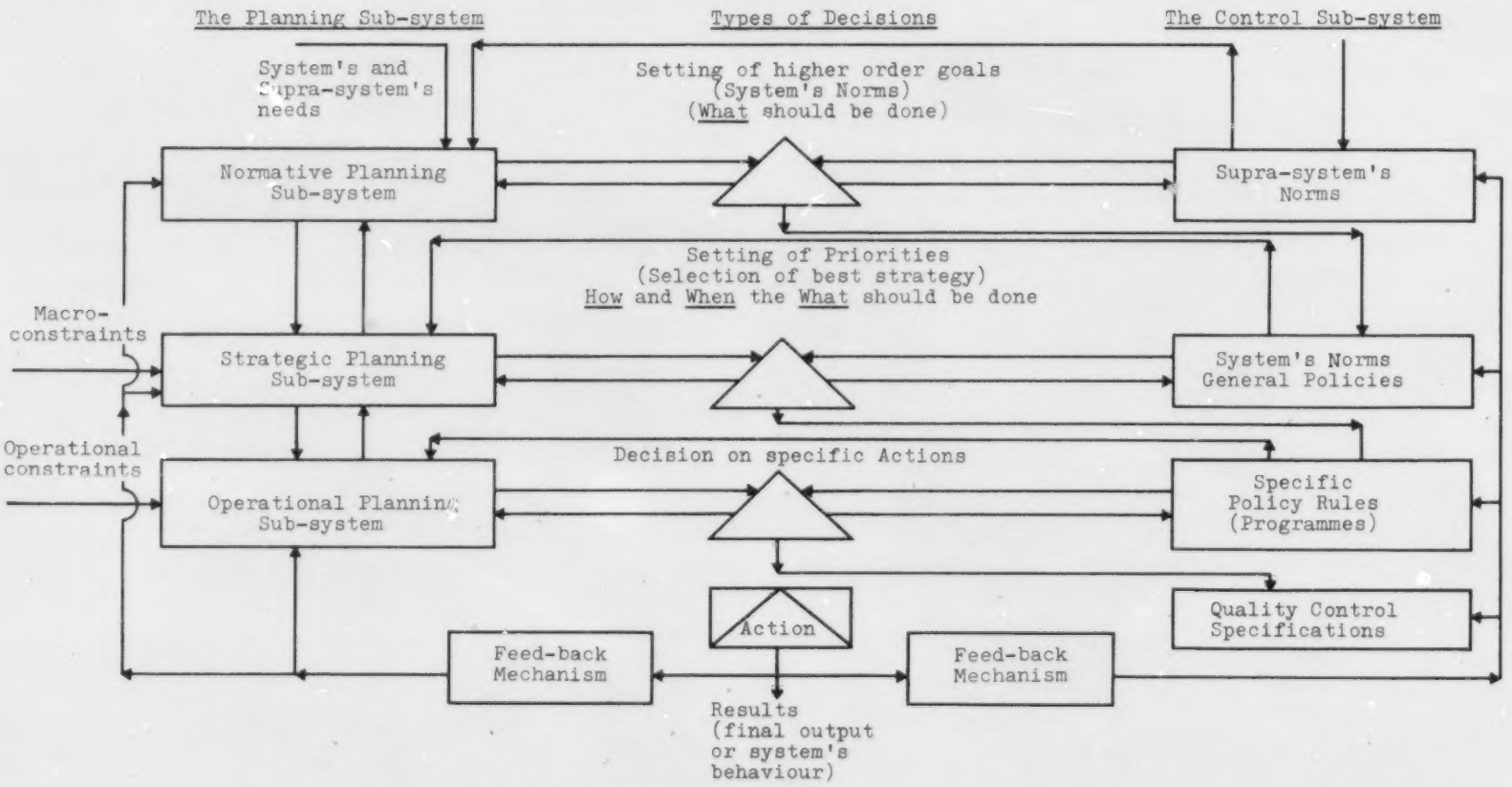
Alternative strategies with the same broad objective are simply different sets of specific goals requiring different combinations of fixed inputs to the educational system.

For example, for the objective of equality of opportunity, instead of giving priority to expanding compulsory education, an educational system may choose to focus on free access to post-secondary education. It is evident, however, that the implementation of such a strategy will require a different set of specific goals which will affect differently the fixed inputs of the system. On the other hand, the time horizon within which the various strategies will be implemented, will also vary from strategy to strategy. One of the main tasks of strategic planning, therefore, is to select the "best" strategy. The selection procedure, among other things, implies the existence or the setting up of evaluative criteria or norms. Such norms are set by the normative decision-making sub-system. However, it may be necessary that the strategic decision-making sub-system adds to those provided by the normative system. Such additional criteria may fall within the following areas: educational system capacity, educational technology, socio-political conditions, the budgetary situation, etc. The priority which should be given to any of these groups of criteria, will be influenced by the preference function of those involved in high-order policy making. It is self-evident that the more representative the preference function (i.e. the greater the consensus on a particular order of values), the more acceptable will be the strategy.

The strategic decision-making sub-system (and therefore strategic planning), since it functions within the limits set by the normative decision-making sub-systems, enjoys a reduced autonomy. Nevertheless it still possesses enough degrees of freedom to develop new decisions, which, however, must be based on a set of objectives predetermined by its supra-system: i.e. the normative decision-making sub-system. This shows the existing conceptual integration between the two decision-making sub-systems which is attained through a continuous feedback from the strategic to the normative decision-making sub-system as shown in Diagram 1.

Diagram 1

THE DECISION-MAKING SYSTEM


The Planning Sub-system
Types of Decisions
The Control Sub-system
System's and Supra-system's needs
Setting of higher order goals (System's Norms) (What should be done)
Normative Planning Sub-system
Supra-system's Norms
Setting of Priorities (Selection of best strategy) How and When the What should be done
Macro-constraints
Strategic Planning Sub-system
System's Norms General Policies
Operational constraints
Decision on specific Actions
Operational Planning Sub-system
Specific Policy Rules (Programmes)
Action
Quality Control Specifications
Feed-back Mechanism
Feed-back Mechanism
Results (final output or system's behaviour)

This feed-back allows the normative sub-system to achieve two things:

a) to evaluate the "results" of the strategic sub-system as against the high-order policy it itself had set: and
b) to evaluate, on the basis of the information received from the strategic sub-system, its own high-order policies, and if necessary modify them when it is evident that they are either not attainable, or at a prohibitive educational and/or social cost.

In practice, however, several things may happen which contribute to the breaking down of the communication between the two sub-systems. The following seem to be the most frequent:

a) The normative decision-making sub-system of an educational system (or any other similar system) even when centralised, are dispersed over many structural entities which are not always well integrated or co-ordinated. This structural division of the normative sub-system prohibits the effective evaluation of the outcome of the strategic sub-system. Objectives thus tend to remain un-modified, and the strategic sub-system largely uncontrolled.
b) The normative sub-system is, in most cases, staffed with "politicians" whose power may not last long enough to see their "policies" become practical realities. The policy makers thus rarely have time for evaluation. These time limitations almost inevitably mean an accretion of power and autonomy to "lower" decision making levels.

Of course it is natural for the strategic sub-system, as all other decision-making sub-systems, especially the administrative one, to attempt to increase its autonomy vis-a-vis the normative supra system. In this it is helped, as was argued earlier, by its structural independence. Units for strategic planning are usually organised with weak links in the normative sub-system, which continuously weaken with any change of the "executive". The latter usually responds by demonstrating lack of trust and confidence in planning bodies, and setting up as alternative sources of advice small (private) consulting bodies.

4. The Operational Decision-Making Sub-System

The outputs of the strategic decision-making sub-system, in the form of well defined "programmes", which constitute the selected "strategy", together with specific decision-making rules for guiding the implementation of the programmes, enter the "operational" decision-making sub-system. At this level a further reduction of the generalities incorporated in the outcome of the strategic level takes place, leading to decisions which can be translated into action with the least ambiguity. The final action of the system - to be carried out by the administrative sub-system - should, therefore, be seen as a direct response to the command outcome of the operational decision-making sub-system. This indicates the great importance of operational decisions in controlling the administrative sub-system, and in turn the overall system's final behaviour.

Because of their nature, operational decisions are of a short-term type coinciding usually with the so-called "budgetary" decision. The final outcome of the operational decision-making sub-system is, therefore, in the form of specific "projects", together with the necessary specification to facilitate the evaluation of the system's final output (quality and quantity control).

The rôle of operational planning is to help the taking of operational decisions, by processing all information (inputs) entering the operational decision-making sub-system. This information takes the form of:

a) Programmes and decision rules (the outcome of the strategic sub-system).
b) Operational constraints(1) i.e. available financial means; educational system capacity and structure; other educational system inputs, etc.
c) Information coming from below on the operation and performance of the overall system.

Operational planning is involved in the following specific activities:

a) Evaluation of the actual performance of the various parts of the system;
b) Project design i.e. the design of concrete steps for implementing the system's programmes;
c) Project evaluation (internal control) and selection with the help of the decision rules supplied by the strategic sub-system which are designed in such a way as to guarantee the attainment of the system's high-order policies.
d) The cost estimation of the projects, and the preparation of the system's "budget" incorporating overall operational and maintenance costs.
e) The prescription of project implementation and evaluation, as well as systems operation and maintenance criteria, to be used by the administrative system in taking the necessary decisions for ensuring the successful implementation of the projects as well as the operation and maintenance of the various operational sub-systems of the system.

It is evident that since operational decision-making (and planning) functions under the guidance of the strategic decision-making (and planning) sub-system, it enjoys less autonomy than the strategic sub-system. It can be said that it is a system with conditional selection of plans and predictive feedback. At this level, error correction is based on extensive memory facilities and ability to evaluate and act on a wide, although limited, range of different input conditions.

Operational decision-making (and planning) deals with the parts of the educational system, having as its major objective to maintain equilibrium among them, whereas the strategic sub-system deals with the system as a whole and attempts to maintain the equilibrium between the educational system and its environment.

Decisions as to the internal allocation of resources, the rate of growth of each of the educational systems parts, etc., are taken at the operational level, though always according to the macro-objectives set at the strategic level.

5. The Administrative Decision-Making Sub-System

The administrative decision-making sub-system is responsible for the execution of operational decisions. The outcomes of the operational decision-making sub-systems enter the administrative sub-system in the form of projects together with specific decision-rules for helping in both implementation and evaluation, as well as the

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1) The difference between operational and strategic constraints is that operational constraints cannot be altered during the time span of operational decisions, whereas this is possible at the strategic level. In theory, operational constraints are dictated by the strategic decision-making system. In practice, however, and especially where there is no communication (integration) between strategic and operational planning, operational constraints are affected by administrative criteria.

evaluation of the system's operation and maintenance functions. The decision rules at this level are very specific and do not allow much degree of freedom in the taking of an administrative decision. For this reason administrative decisions are usually called "routine" or "programmed" decisions, indicating their relative inflexibility and their repetitive nature. The administrative sub-system enjoys the least autonomy as it has only one goal and fixed input conditions. It resembles the simple machine with direct feedback for control but without selective memory. Very often, however, the taking of a routine decision involves "interpreting" the meaning of the decision rules and the operational decisions themselves in order to facilitate their implementation.

At this point it is necessary to elaborate more on the inherent tendency which social systems have to increase their autonomy vis-a-vis their supra-systems. Looking at the four hierarchical decision-making sub-systems presented above, it can be said that this tendency applies to all those beyond the normative or policy sub-system. It becomes, however, especially important at the administrative level at which the decision-making is the most constrained. This inherent tendency is facilitated in large and complex social systems (such as education) by the following factors:

a) the administrative sub-system (a social system in itself) is permanently structured and staffed;
b) the structures of the other three sub-systems are less permanent, especially that of the policy and strategic decision making because of their "political" nature;
c) the decision-rules for administrative decision-making, once set, are incorporated in the organisation's charter, thus receiving a long-lasting and universal value according to which the goals of the system (past, present and future) are being interpreted.(1) In practice, with the passage of time, they are turned from means to real ends, and the degree of adherence to these organisational rules, becomes a criterion for evaluating administrative performance;
d) new policies are usually set without simultaneously changing the administrative rules. Hence new policies and goals are interpreted in terms of a set of often quite inappropriate administrative decision-making rules.

This separation of the administrative decision-making sub-system from its executive supra-structure is responsible for "a slow, silent and almost invisible encroachment by administrative outlooks of the executive (policy and goal setting) area, resulting in the patient erosion of what '<u>can</u>' be done by what 'will' be done which, in the natural course of institutional activity, is hard to distinguish from what '<u>is being done</u>.'"(2)

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1) The degree to which this is true seems to depend on the degree of specificity with which the decision-rules (and the various administrative rôles within an organisation) have been initially defined. It seems that well-defined decision-rules allow the least discretion, thus enforcing the inherent tendency of the administrative system to stay independent from its supra-systems and resist change. Less well-defined (or under defined) decision-rules forces the administrative decision-making either to continuously depend on its supra-systems for additional specifications or, and depending on the existing degree of integration among the various sub-systems or the degree of democratic behaviour tolerated by the system, to take initiative in the interpretation of the decision-rules, thus inducing change. On the other hand over-definition of decision-rules seems to result in built-in pressures for innovative and adaptive administrative behaviour. (See e.g. Frank, A.G. "Administrative Role Definition and Social Change" in J.A. Litterer (ed.) <u>Organisations</u>, John Wiley and Sons, New York, 1969, Vol. I. Second Edition).

2) Ozbekham, op. cit., page 139.
An example of the problems outlined here is given in the Examiners' Report on the educational planning process in England and Wales, in OECD, <u>Educational Development Strategy in England and Wales</u>, Paris 1975.

The solution to this inherent problem seems to lie in the degree of integration that exists among the various decision-making sub-systems of a social system. Effective integration, in turn, seems to relate directly to the degree of effective communication which exists among these sub-systems. Communication, on the other hand, to be effective, must move in both directions. When structures are separated, the opportunity should be given to individuals from lower levels to participate in the taking of high order decisions so that they can be given the chance to share and as a result to internalise the objectives and goals of the system before they are asked to implement them. In this way eventual conflict of goals is minimised whilst it increases the overall integration of the system.

It is hypothesised that conceptually, the decision-making process of all the educational systems follows, consciously or not, the above framework. In Part II of this report, the validity of this hypothesis is tested in the context of the functioning of the education systems of Portugal, Greece and Turkey.

Part II

THE COUNTRY PROJECTS

A. Introduction: Educational Planning in the three countries

The three countries which participated in the study strongly emphasize macro-planning work. All three possess central planning units and regularly prepare five-year plans for economic and social development.(1)

Although the main emphasis in the five-year plans is put on economic matters, the other sectors, such as education, receive due attention. The educational sector occupies an important part of such plans for two major reasons: (a) activities of this sector are almost entirely under the direct guidance and control of the central government, with the exception to some extent of Portugal, and (b) the importance of this sector in the supply of trained manpower. The plans usually portray the overall national economic situation and indicate objectives in relation to overall economic growth. Several attempts, however, have been made to "regionalise" the plans, but on a limited basis only.

One of the earliest systematic attempts toward macro-educational planning was made through the Mediterranean Regional Project (MRP) in which all six Mediterranean OECD Member countries(2) participated.

The main preoccupation of these countries at the time of the MRP was economic development, which explains their adoption of the manpower approach to educational planning. The chief objective in educational planning therefore became the estimation of the supply of the necessary manpower, broken down by various qualifications. Very detailed supply and demand balance sheets were prepared and quantitative targets were set for a long period.(3) There is, however, evidence that during the 1960-70 period, private demand for all types of educational services increased to such a degree that the educational systems in all three countries were forced to increase supply beyond the targets set by the MRP plans. Actual educational decisions for the expansion of the educational system have not therefore been much influenced by the overall socio-economic planning work. Educational systems grew without adapting themselves to changing social and economic profiles. Thus, a qualitative and quantitative mismatch can be observed in these countries in relation both to manpower needs of the economic system and to the demand of individuals for education.

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1) Administratively, all three are centrally structured and their educational systems are almost entirely run by the central government.

2) Greece, Italy, Portugal, Spain, Turkey, Yugoslavia.

3) The Mediterranean Regional Projects: Greece, OECD, Paris, 1965; Portugal, OECD, Paris, 1966; Turkey, OECD, Paris, 1965.

The challenge in the 1970s to educational systems, and indirectly to educational planning, therefore, is the satisfaction of a highly diversified demand for education from both individuals and social systems. This implies the setting of educational objectives in direct relationship to the expressed social demand for education, i.e. an effort toward comprehensive educational planning.

The OECD programme on Planning and Management of the Educational System focused directly on this need. It also emphasized the "Management"(1) of the system, because this dimension had been neglected in the past. Failures in plan implementation are now largely being attributed to failure of management, especially in the development of specific programmes which aimed at achieving broad objectives. However, failure in the selection and setting of the most appropriate objectives has also been evident.

B. Normative Decision-Making Level

1. Introduction

It seems that one of the main obstacles to the effectiveness of actual educational planning often appears with the setting of the educational system's objectives. This is true, generally, but shows up particularly sharply in the three countries reviewed.

The main problem at this decision level is related to how objectives and policies, which are supposed to guide and orient the development and behaviour of the educational system, are set.

The usual practice, which has also been accepted by planners in these three countries, seems to be the one discussed in general lines in Part I, i.e. objectives and policies are set with the help of "political" criteria, without due attention to analysing and studying their eventual consequences. Hence, in "pragmatic" planning, objectives and policies are taken as given and the role of planning then is confined, in a deterministic way, to find the "best" strategy for attaining objectives. Plans, therefore, have to adapt to imposed "political" constraints, and there seems little possibility for modifying objectives and/or policies on the basis of systematic analysis. Planning at the normative level is primarily an exercise of value judgement but subjective judgement does not necessarily imply a wrong judgement; it is merely a partial one. The more, therefore, the values used for normative decision-making are representative of those of the society at large, the more the subjective judgement becomes "socially objective". It is, therefore, representative value systems that planning, at this level, has to seek. To increase the probabilities that the policies are "right" most of the time, the following fundamental criteria should be satisfied:

- Responsiveness: (i.e.) whether an educational policy is directly associated with the educational "needs" of individuals and various social systems.
- Flexibility: (i.e.) whether an educational policy allows a variety of strategies to be followed and to be fairly easily modified if necessary in order to facilitate the system's development and/or adaptation.
- Acceptability: (i.e.) whether an educational policy satisfies most of those concerned, and is not at the same time strongly opposed by others.
- Feasibility: (i.e.) whether an educational policy is at all feasible considering existing constraints. This criterion, however, becomes less important for the

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1) Management should be seen, in the context of the present report as referring to the implementation of planned decisions at all four levels, and more particularly at the administrative sub-system.

long-term policies of the system, and it is usually considered at the strategic level rather than the normative level. Related information, however, is fed back to policy level for eventual modification of adopted policies.

It is evident from the above that the educational system's normative policy/decision making capabilities depend largely on the channels with which the system is endowed for both internal and external communication. These communication channels contribute to the system's "awareness" both of its own "needs" and of those of its environment.

At the same time, however, the educational normative decision-making sub-system has continually to check the validity of the evaluative criteria in use (values, images, beliefs, etc.) against current information patterns. This is facilitated through appropriate research designed to generate the information necessary for adaptation, innovation and progress, and thus increase the educational system's "foresightedness", helping it to define its development in relation to probable future realities. Failure to question the validity of the evaluative criteria (norms) in use will certainly cause the perpetuation of the present and thus of the past, and/or permit the cultivation of illusionary futures. In both cases, the final outcome will be an educational system incapable of meeting individuals' aspirations and the real educational needs of the other social systems.

2. The Greek Project: The Goal-Setting Sub-System

One part of the Greek Project concerned the investigation of operations at the normative level of the Greek educational system. The main objective was to identify the ways and means by which the educational system arrived at policy decisions: whether the educational system was kept informed of broader societal educational needs; and whether it was aware of various changes and developments, national as well as international, which could have a major impact on the system's future.

In the absence of related research activities (such as the "market-survey" type) the study concentrated on surveying existing communication patterns between the educational system and the environment with which it exchanges information. More particularly, the pattern of the study was as follows:

a) Identification and definition of the various social systems which make up the environment of the educational system.
b) Identification within each of these social systems of the segments responsible for meeting the educational needs of the systems.
c) Identification of formal communication channels linking the various social systems with the educational system.
d) Identification of the nature and frequency of communication in terms of:
   1. Form of messages exchanged;
   2. Initiator of the message;
   3. Receiver of the message;
   4. The "Decider" for a particular policy decision;
   5. Degree of elaboration to which information received was subjected before any decision was taken;
   6. Type of participation in policy-making;
   7. Actual setting of a policy.

The social systems considered in the Greek study were the following:

- Religious
- Cultural
- National/Political
- National Defence
- Demographic
- Economic

- Professional
- International Educational
- Governance

The delineation of the various social systems followed a structural approach and was made more or less in terms of existing formal institutional arrangements which serve the particular function (or "purpose") of each social system. It should be noted that "individuals" are considered as elements of various social systems (e.g. demographic, manpower, educational, etc.), in accordance with their main role at a particular period of time. The Greek Report states that the study is confined, mainly for practical reasons, to formal communication. This should not be interpreted as under-estimating the role of informal communication networks. The latter are of great importance and take many forms. For example they are significant in the imposition of the personal value systems of education decision makers upon policies.(1)

It was thought necessary to expand somewhat on the relations between the educational system and the "governance system". The existing macro-structural situation is presented diagrammatically in Figure A. The shaded parts indicate the sub-systems (e.g. the educational system). On the whole, these make up the various ministries. The arrows in Figure A indicate flows of communication. It is evident that the inter-communication considered in the study involves only the Ministries as the official effectors of sectoral policies. Within each system (sector), however, there is intra-communication by which the Ministries are informed of the system's needs.

Ministries are composed of two parts. There is an administration of a permanent nature and there are political authorities, such as the Minister, Vice-Ministers, and the Secretary General, who have non-permanent status. The administration seen as a sub-system occupies the middle-level between the political leadership and the rest of the educational system. Taking this into account, the administration presumably exercises an important influence on policy/decisions because of the amount and type of information it controls.(2)

The autonomy for policy decisions of the Ministry of Education seems to be reduced by other parts of the governance system, especially by the Central Planning Unit (C.P.U.) responsible for the overall planning activities. This Unit was located in the Ministry for Governmental Policies when the study took place. At present it is part of the Ministry of Co-ordination. The real situation, therefore, looks more as is shown in Figure B. Double-shaded parts indicate direct communication of the C.P.U. with various Ministries. C.P.U. is supposed simply to co-ordinate sectoral governmental policies, but very often it dictates policies for all sectors.

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1) This idea is presented in: A. Weilenmann, Educational Planning and Management: An Approach Based on Systems' Cybernetics, OECD (Forthcoming).

2) For a discussion of the importance of the "middle-level" concept see, for example: K. Deutsch, The Nerves of Government: Models of Political Communication and Control, The Free Press, New York 1966, (paper) pages 154-757. It seems, however, that during the period under investigation the role of the administration in Greece has changed considerably. Because of the extreme power of the political authorities, the administration was transformed to a passive implementation agent of all political decisions. For this reason the results of the study should be interpretated accordingly, although the behaviour of the traditional Greek Administration seems to be subjunctive to the political authorities.

Because of the important role played by the C.P.U. in the setting of sectoral policies, including those for education,(1) the existing communication between the Ministry of Education and the C.P.U. has been studied separately.

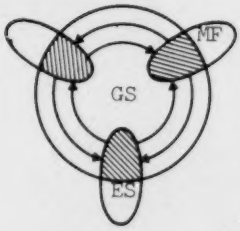

FIGURE A

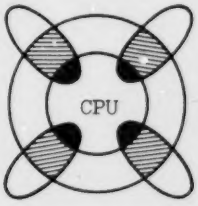

FIGURE B

The Greek educational system depends almost entirely on its supra-system (i.e. the Governance System) for its normative decisions, and most of its strategic and operational ones as well. Although, officially, the responsibility for this type of decision lies with the Ministry of Education, in reality most decisions (such as those dealing with manpower-educational policies) are taken outside the Ministry of Education; such decisions are made frequently without consultation with education authorities, although some joint committees do operate.

This practice has affected the educational system's normative decision-making capabilities in various ways. In the first place, most of the consultative bodies of the educational system have been rendered practically useless, either because of inappropriate staffing or because of deliberate neglect. This has allowed other agencies to undertake the responsibility for educational policy-making, and to impose their decisions upon the educational system. These unilateral policy-decisions, of course, reflect the preference of the "Executive" without necessarily considering either the views of education authorities or society's educational needs. The administrative system has reacted passively: it has accepted the task of implementing policy decisions without attempting to assess their implications.

The study showed clearly that those with responsibility in the education system had few means of becoming informed about continually changing educational demands. It also demonstrated the system's inherent rigidity (due perhaps to retention of out-dated values) which impede its adaptation to changing environmental conditions. The objectives of the educational system therefore appear to have been set without due regard to the educational demands of various social systems. Their basis seems to have been primarily

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1) The same is true for Turkey and Portugal. There also, the existence of C.P.U. greatly reduces the autonomy of the Ministries of Education.

a combination of the subjective values of those few at the top of the executive pyramid, and the educational demands of only a few of the social systems. The objectives were thus much dependent upon the political power structure of the time.(1) It is obvious that objectives set in this way will directly affect both strategic and operational decisions, and will probably create conflict between values and beliefs of the rest of the educational system which could well result in the rejection of these objectives as soon as time permits.

The methodology followed in the study was effective in diagnosing problems in the education system at the decision-making level. It showed particular communication gaps which require attention. Its effectiveness as a methodology would have increased had it given more attention to parts of the system outside governmental circles, and to informal communication networks.

C. The Strategic Decision-Making Level

1. Introduction

In the general literature as well as in practice, there seems to be some confusion about the functions of strategic planning and of strategic decision-making. Functions such as policy assessment, programme planning, future studies, etc., are viewed as belonging to strategic planning.(2)

The general purpose of the strategic level as was argued earlier is in fact to reduce the vagueness of the higher order policy objectives which are set at the normative level by translating them into a set of more specific and interrelated goals which make up a "strategy". These are the goals which are usually presented in overall governmental plans. An associated activity is that of selecting the "best" strategy, i.e. that group of goals which could best lead to the attainment of the system's policy objectives. It is assumed, of course, that a particular objective can be met through alternative strategies.

In the elaboration of a strategy there is (or should be) an automatic assessment of resource and time requirements, taking into account existing technology and other related constraints. The results of this assessment are fed back to the normative sub-system and are used by it as a control instrument in order to modify the policy accordingly. This is the internal planning control function which is usually termed as "critical planning".

Other functions of strategic planning relate to the determination of the operating rules (such as administrative regulations) as well as the design of structures required for plan implementation.(3) Functions such as project planning and budgeting, on the other hand, should be viewed rather as functions of the operational decision-making levels, especially when they are of a short-term nature. On the basis of this, the traditional governmental macro-planning in the three countries concerned is of the

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1) It could be said that during the 1967-74 period there was a continuous attempt to adapt the entire education system to the prevailing political thinking instead of adapting the educational policies to the society's educational demands.

2) See, for example, a paper prepared for an ad hoc meeting on the development of planning in government, "An Outline Analysis of Planning Activities in Government", OECD, Paris, 24th October, 1974.

3) The discussion on the study of administrative structures (the Turkish Project) is carried out separately in Part II, although it falls into the strategic/operational levels.

strategic type with or without direct implications for strategic decision-making because of the existing dichotomy between planning structures and decision-making authorities.(1)

2. The Portuguese Project: The Planning Phase

The Portuguese Project falls neatly into the strategic planning level. According to the terms of reference provided in the agreement between OECD and the Ministry of National Education of Portugal, the work to be carried out under this special project was directly linked to a systematic assessment of the financial, human and material resource implications of introducing a new structure into the educational system.(2) The structural revisions proposed covered changes from nursery school to higher education. The project was not, however, intended to cover higher education, with the exception of teacher training colleges.

Before going into details about the methodology and techniques employed in the project it would be interesting to try and link this work, at the strategic level, with the normative type of decisions pertaining to the "objective" which the work at the strategic level was intended to implement.

If structural change of the educational system is considered as an "objective", it is difficult to consider it as a normative type of decision. It would have been preferable to see it as a "means" toward the fulfilment of other specific aims, such as:

- expansion, individualisation and diversity in education;
- accessibility to successive levels of education;
- effective inter-relationships between the various sectors of secondary education;
- development of vocational aspects;
- relationship with social demand.

These five specific aims contribute in turn to two main policy objectives underlining the educational reform effort: namely, equality of opportunity and efficiency.

Viewing the decision of the new structure from this point of view, it is evident that it falls rather within the strategic level, whereas decisions pertaining to the equality of opportunity and efficiency objectives fall within the normative level. In other words, if there is any sequential rationale in decision-making, a decision on a structural change should be seen as a response to the two policy objectives and to be the end result of the strategic planning process. In the Portuguese case, however, the decision pertaining to the need for a structural change, as well as the particular decisions for the specific nature of this change became policy decisions taken at the political level irrespective of any "technical" elaboration as to whether the proposed structural changes would best contribute to the attainment of the two above-stated policy objectives. It seems, therefore, that the proposed structural change was decided as if it were a policy-objective in itself and not as a means toward the fulfilment of other policy objectives.

The proposed new educational structure was widely circulated by the Minister of National Education for public information and discussion in 1971 as a White Paper entitled "Projected Educational System". At the same time the Research and Planning

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1) This type of planning is usually called "indicative" planning in its totality, but in-so-far as the public investment is concerned, is much less so.

2) The proposed new structure was never implemented and, since the political changes of 1974, no decisions in relation to any eventual educational reform have been taken.

Group of the Portuguese Ministry of Education (GEPAE) was given a mandate to assess resource implications for implementing the new educational structure. The initial presentation of the new system made no explicit reference to resource implications.

It appears, therefore, although this is not certain, that the involvement of GEPAE in the setting of the policy objective, viz the new structure, was marginal if not nil. The little involvement which might have taken place was mainly through the personal communication between the Director of the Centre and the Minister. The policy decision was primarily a political one, with pedagogical considerations seen purely as a technical input.

The GEPAE was also given target deadlines for the system's implementation, set again mainly by political criteria. The urgency of the GEPAE task, as dictated by the implementation dead-lines, forced the planning group to make the analysis of resource requirements at the same time as the political and pedagogical public dialogue was going on. Most of the analysis was in fact carried out during 1972 and early 1973 and, as such, is largely based on the plan as it existed in late 1971/early 1972. Public dialogue, however, had a modifying effect upon the initial proposal presented in the "White Paper". This is demonstrated in the Portuguese Educational Reform Bill of 1973 which formalised the structural changes. For example, the Bill stipulated that the secondary school sector should be a single stream comprehensive system, while the 1971 White Paper proposed parallel streams of classical, technical and artistic high schools. The results presented in the Portuguese Report reflect, therefore, only the initial projected "parallel" system.

Although the planning process is an on-going one and constant revisions are called for as circumstances change, it is evident that in the Portuguese case there seems to have been a wastage of time and resources that could have been prevented. In some cases, it must be said, the initial outputs from the resource estimation procedure did influence decisions on various structural aspects of the new system. The overall contribution, however, of the planning exercise on the policy assessment process seems to have been rather limited because of the pre-determined conditions.

At a project leaders' meeting held in Paris in June 1972, Professor Simpson had the opportunity to reflect on the planning procedures in GEPAE. He said that:

"In the planning and analysis for the 1974/79 period, the sequence has been:

a) the establishment of the new educational system to be adopted in the medium/long term;
b) the definition of specific objectives for 1979;
c) the evaluation of resource requirements, and the planning base to achieve (b) above.

"In theory, perhaps, stages (a), (b) and (c) might have been considered jointly, so that long-term objectives were only set in the light of what was feasible in the short and medium term. But this does seem to me a largely theoretical concept, for the political and social considerations must, surely, dictate resource requirements, rather than be unduly constrained by them.

Thus I think that the setting of (a) largely independent of resource considerations was indeed appropriate.

Stages (b) and (c) above, however, representing planning over a relatively short horizon, must take into account resource availabilities. In the event, the target levels of achievement fixed for 1979 were also set mainly by political objectives, and it is conceivable that the resulting strains on the educational system may be so severe as to weaken somewhat its long-term achievements. The project team had to accept this

situation, but it would clearly have been preferable, had time and effort allowed for an initial analysis to have influenced the setting of these medium-term objectives."(1)

It is evident from the above discussion that most of the decisions pertaining to the new education structure were not policy decisions to be taken at the policy level. They were, rather, strategic type of decisions or a set of decisions geared toward the attainment of the two policies referred to above. They had therefore to be elaborated initially at the strategic level, i.e. within the GEPAE, taking into account all necessary constraints. The fact that the elaboration of the initial conception of the project should have been done at the strategic level does not exclude political consideration. The Minister himself, as well as those affected by the new structure could and should have participated in the initial stage. They all share in the strategic decision-making level. The only difference would have been that the feasibility criterion as discussed earlier would not have been taken into account at the normative level, but only at the strategic level.

The project methodology had to be concerned with the totality of the educational system, as well as with its interactions with the external environment, including the Central Planning Office. At the same time it had to be pragmatic about the availability of data, and the time and resources available for completion of the project.

Details of the methodology followed are presented in the Summary Report. It may therefore suffice here to show only diagramatically the various sub-systems considered within the overall systematic framework, together with their interactions. This is done in Diagram 2.

The diagram indicates clearly the interactions between the major elements of the education system:

- pupil numbers;
- staff availability;
- equipment, and school building requirements;
- financial resources.

These constitute the main "sub-systems" which were modelled and studied separately before considering their independence.

This methodology was preferred to others (e.g. the modelling of the total system as a single entity) mainly because of the flexibility it allows in the study of each of the sub-systems, and in the simulation of the various policy alternatives, taking into account continuous changes in the external and internal constraints as they may occur. The consistency of the results of the various sub-systems was achieved by an iterative approach, whereby the various stages contributed to a better understanding of the constraints, and of the form of "acceptable" solutions. As was inevitable with the large increase in educational opportunities under the new system, it was found that the most important constraints centred on the provision of teaching resources. Thus, the dominant interaction between the sub-systems tended to be between pupil numbers and teacher requirements, and the loops shown in Diagram 2 below were circumnavigated many times.

This procedure facilitated the changing of target levels set for the various "design" parameters, when necessary, to allow for subjective views on "acceptable"

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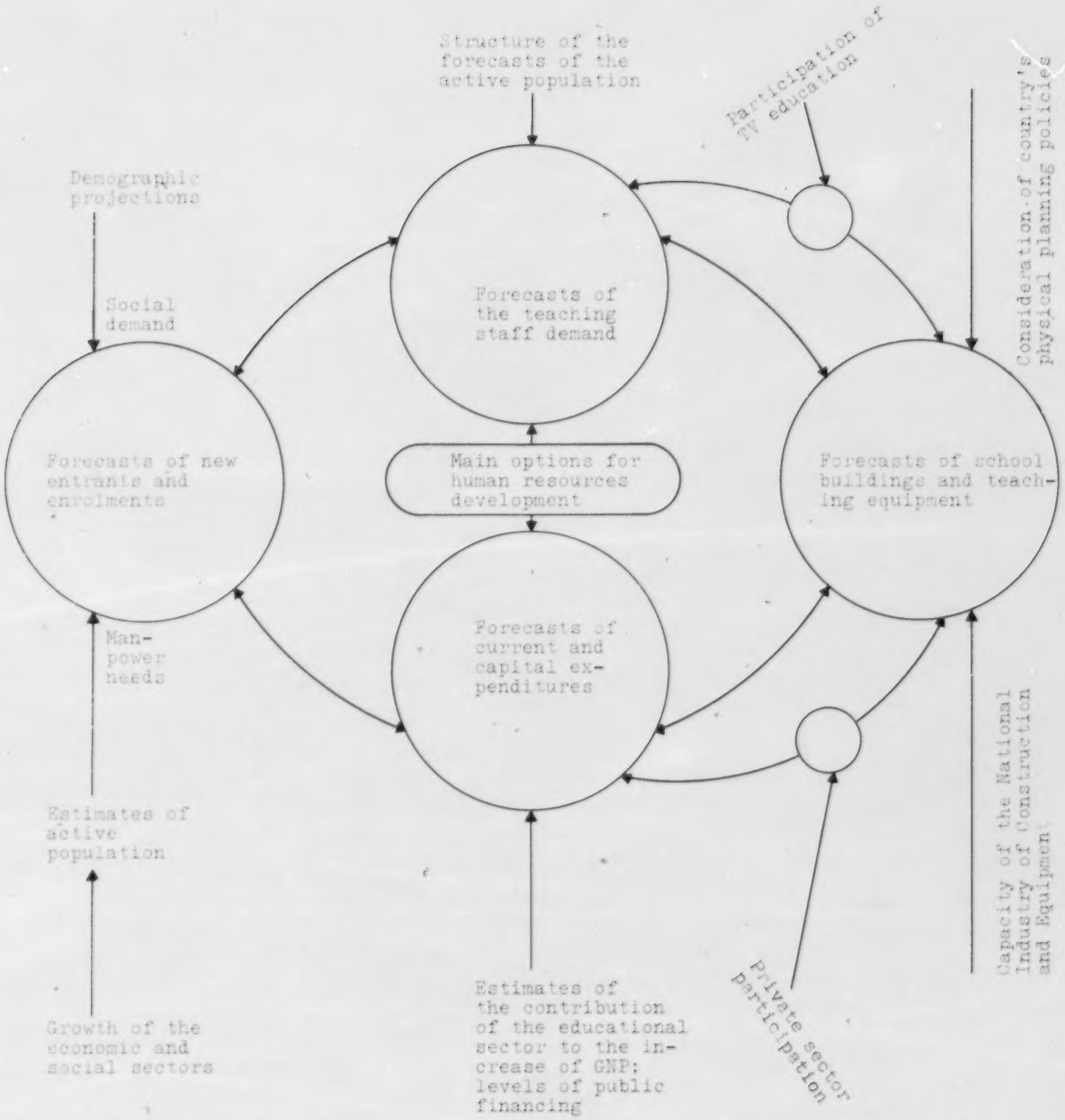
1) M.G. Simpson: "Some Reflections on Planning Studies - based on experience within the Portuguese Project", 1972, (mimeo).

Diagram 2

OVERALL SYSTEM INTERACTIONS AND THE SUB-SYSTEMS INVOLVED


Structure of the forecasts of the active population
Participation of TV education
Demographic projections
Social demand
Forecasts of the teaching staff demand
Consideration of country's physical planning policies
Forecasts of new entrants and enrolments
Main options for human resources development
Forecasts of school buildings and teaching equipment
Man-power needs
Forecasts of current and capital expenditures
Estimates of active population
Capacity of the National Industry of Construction and Equipment
Growth of the economic and social sectors
Estimates of the contribution of the educational sector to the increase of GNP: levels of public financing
Private sector participation

levels of attainment to ease what otherwise appeared to be impossible resource constraints, and to allow for data changes. In this last respect many of the changes were inspired by the project itself, as critical areas were identified.

The methodology allowed the planning group "in an area in which no solution can ever be shown to be best, to utilise a judicious blend of numerical analysis and subjective assessment, which is surely the most effective way to generate meaningful plans in any social context". It appeared to be the most useful methodology in the Portuguese situation.

One question which should be raised in this context relates to the apparently infinite number of solutions which seem to be permitted by the use of this methodology. This appears to be true only if we assume that all constraints are allowed to vary infinitely. If at some stage of the project the constraints are fixed - subjectively or not - then there is one and only one solution which should be considered as "best". The practical question therefore, relates to whether "acceptable constraints" will dictate "acceptable results" or the other way round. In such a situation additional criteria will be needed to judge the acceptability of the results. For example, the pupil/teacher ratio may be used as a constraint. The question is: should the ratio be fixed first and the number of teachers be given as a function of eventual enrolments, or should the ratio fluctuate and the number of both pupils and teachers be set according to other criteria (e.g. availability of teachers)? If the latter method is used the teacher/pupil ratio is not given the appropriate value and should not be considered as a constraint at all. If, on the other hand, a specific value of the ratio is considered too important the first approach is more suitable. In this case an effort is required to make available the necessary number of teachers indicated by the ratio. The very notion of planning is not to reduce "desirable" to "feasible" but to attempt, as far as possible, to make feasible what is actually desirable.

The study treated this problem of the pupil/teacher ratios as follows: In the first place, two ratios were established, viz an "historical" one (i.e. the mean value the system achieved through the previous decade) and an "ideal" one (no indications are provided as to how this value was reached). In addition to these two values, a third one was considered as the average value of the "ideal" and the "historic" ones. Results, in turn, were generated on the basis of all three values and the problem was transformed from the choice of the ratios to the choice of the results. And the Summary Report indicates that, for primary education for example, the average ratio "... was considered to give most meaningful results". But meaningful results in relation to what criteria? This question is not answered directly by the Summary Report but perhaps "meaningful" is defined in relation to eventual teacher-supply possibilities.

The same reasoning applies to most of the other constraints considered in the study. One of the most important examples concerns the setting of transition (qualification), repetition and drop-out coefficients employed in the study, for the estimation of pupil flows throughout the planning period.

In spite of the arguments presented in the Summary Report, it seems that the values of the various coefficients were set rather arbitrarily in order to generate an "acceptable" level of pupil flow. This ex ante setting of the values of these coefficients is unrealistic and distorts their very meaning and importance. These coefficients presumably indicate how the behaviour of social demand for education manifests itself during a certain period of time. Their values therefore present the end results of all determinants of social demand including the very important supply factor. In the case of the Portuguese project, however, the only crucial factor on which the values of these

coefficients were based seems to have been the supply factor, and other determinants of social demand (e.g. pupil's aspirations, social value of education, etc.) were apparently ignored.

As to the future demand for education in Portugal, there are some disagreements between the results of the study under consideration and another carried out by the Secretariat.(1) This study's results which were used in the preparation of the IVth Development Plan, 1970-1985, indicate a higher rate of increase in enrolments in the first eight years of schooling over the period 1970-1985 (2.5 per cent annually) than that presented in the later OECD report (0.9 per cent annually). As to the rate of increase in enrolment in upper secondary education this study foresees a lower rate (2.5 per cent per year) than that of the OECD report (4.6 per cent per year, similar to that attained during the last 5 years).

There are no indications in this study as to eventual differences in supply and demand for qualified manpower. Although Diagram 2 suggests that enrolment figures are established by considering both social demand for education and manpower demand, the manpower sub-system was not used for establishing enrolment targets.

It would have been extremely interesting to see the interplay of the two sub-systems: social demand for education and manpower demand. Enrolment targets set in the past on the basis of manpower consideration only - as in the M.R.P. - were in many countries very quickly overtaken by events.(2) Educational systems seem to be unable to resist for long the pressure put on them by unsatisfied demand, particularly at the post-secondary level. The need, therefore, for a more expanded basis on which enrolment targets should be based becomes evident.

It would be better if estimates for both social demand for education and manpower demand could be based on information taken directly from those concerned, i.e. pupil and employers. More precisely, for a rather short-term estimation of private demand one could conduct opinion surveys using a sample of pupils. The results of such a survey would provide valuable information for setting meaningful quantitative targets and also for checking the validity of the values of transition coefficient should a transition flow-matrix be used (as in Portugal) for longer-term forecasts. As to manpower estimates the methodology usually employed is the one developed and used in the M.R.P.(3) This methodology suffers particularly from over-simplified assumptions as to the future development of the economy under study as well as from highly aggregated indicators such as G.N.P., overall productivity rates, etc.

This approach has been mostly employed by following a past pattern of demand for major groups of qualified manpower. Future demand was, therefore, estimated by assuming the same demand structure and allowing only for the minimum productivity growth of industries.(4) This resulted in an under-estimation of future demand for highly qualified manpower at both higher technical (specialised technicians) and university (researchers, etc.) levels. The following appear to be some of the main reasons which explain the failure of the manpower approach as it has been applied.(5)

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1) Education in OECD Developing Countries, OECD, Paris 1974, pp. 54-55.

2) See for example: W. Salomon, Individual Demand for Higher Education in Greece, OECD, Paris, 1964.

3) S. Parnes (ed.), Planning Education for Economic and Social Development, OECD, Paris, 1964.

4) Industries are defined here as in the National Accounts.

5) For an extremely interesting discussion on the pros and cons of the manpower approach see for example: R. Hollister, A Technical Evaluation of the First Stage of the M.R.P., OECD, Paris 1967.

As overall growth takes place the pattern of demand for qualified manpower changes. New technology requires new skills. It is not therefore enough to know how much an industry will grow; the kind of technology to be used and, hence, the mix of skills that will be required must also be taken into account. In addition, the groupings into major types of manpower are not valid after a particular stage of economic development. For example, the overwhelming need in civil engineering in Mediterranean countries now is for specialists, not the old-style generalists. The demand should not therefore be expressed in numbers of "civil engineers" but in numbers of the various specialisations of civil engineering. The technical universities in most of the Mediterranean Member countries, on the other hand, have not shown the necessary adaptability to this change in demand for civil engineers. Thus, apart from a strictly overall quantitative shortcoming, a mismatch developed between the pattern of manpower demand and the pattern of the output of the post-secondary educational system. Technical and non-technical universities alike lack many specialised schools or departments.

In the field of the service industries, manpower estimates are bound to be wrong, even if they are based on rather optimistic standards.(1) As income rises, the demand for service professionals (e.g. medical practitioners) increases faster than expected since the income elasticity of demand for such services is much greater than 1 (usually even greater than 2). This factor is not considered in manpower planning, and this omission adds considerably to the distortion of manpower forecasts. In addition, the previous argument put forward on the various specialisations holds true here.

National manpower planning, to be more effective, has to rely upon direct information from micro-manpower planning, i.e. manpower planning at the level of the firm. Such micro-manpower planning, however, is not done in the Mediterranean Member countries. Recent efforts in both Portugal and Greece to acquire manpower development information directly from the firms (especially the big ones) failed. There is no precise information for the reasons which caused this failure but the most evident appear to be the unwillingness of some of the firms to disclose their growth targets and associated technological development, and the ignorance of other firms as to their future development. The latter usually takes place as a spontaneous response to increased demand rather than a conscious pre-thought and well-planned effort.

These two reasons are very plausible, but it may be that the firms have not been approached in the right way. Perhaps the firms could have been convinced to collaborate if they had understood the usefulness of the effort for their own development. In any event, in the absence of appropriate data on the development of the economy, manpower planning is doomed to fail. The effort of educational and/or national planning agencies could therefore usefully be concentrated, as far as manpower planning is concerned, on persuading industries to come up with their own manpower plans, the synthesis of which could then help in the foundation of the overall national manpower development plan.

D. The Operational Decision-Making Level

1. Introduction

The decisions taken at the operational level aim at facilitating the implementation of the goals set at the strategic level. These goals (as output of the strategic level) become direct input to the operational level providing the necessary guidelines for

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1) A "Standard" is a number indicating how many of a particular specialty, for example physicians, there are or should be per thousand of inhabitants.

operational decision-making. The output of the operational level is in the form of specific projects to be implemented by the administrative sub-system. The operational sub-system because of its location between the strategic and the administrative sub-systems, bears an increased responsibility for the overall effectiveness of the system's deciding process.

The overall effectiveness of the system in attaining its higher order objectives is affected by the degree of integration which exists between strategic-operational and operational-administrative levels. The ideal situation would require a perfect integration of these three levels.(1) Contemporary orthodoxy, however, tends to separate the strategic from the operational level and to link the operational level more closely to the administrative one. This practice makes decisions at the operational level influenced more by administrative behaviour than by the policies of the system as a whole which they are supposed to serve. Administrative behaviour however, "ministers to the continuity and stability of existing functional relations between roles".(2) Such behaviour is therefore resistant to and eventually hinders the taking of decisions which demand some institutional change necessary for attaining the system's new objectives. The new goals are interpreted in terms of the old ones which leads planners at this level (whenever it is not well integrated to the strategic one) to oppose change instead of being its facilitators.

The integration task is evidently a delicate one but is imperative if functional discontinuity at the various levels is to be avoided. When such discontinuity occurs (and it often does in everyday educational planning practice), it creates a dangerous and usually not easily bridged hiatus between policy setting and policy implementation. This hiatus, which distorts communication among the various decision-making levels, helps the administrative system, as mentioned earlier, to increase its autonomy, i.e. to see and implement its own policies by "cleverly" interpreting the system's expressed policies, through an increased concern for what <u>can</u> be done, instead of what <u>ought</u> to be done. Thus, as Ozbekham mentions, policy making also becomes tinged with administration, and planning as a whole ends up as the regulations of the present situation, extending in actuality the present to the "logical future".(3)

Decisions (and thus planning) at the operational level, because of their short-term nature, have to be linked to the strategic decisions, i.e. long-term decisions which have incorporated into themselves any innovations and new orientations the system's policies imply.(4)

2. <u>The Greek Project: The Financing Sub-System</u>

The Greek project gave substantial importance to the financing sub-system. This was seen as that part of the decision-making system which was concerned with securing the necessary resources for implementing the educational system's overall objectives and allocating them to its various parts. The Greek project was more concerned with short-term financial decisions, which fall into the operational decision-making system

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1) Such an integration takes place as was mentioned earlier in the case of the individual person.

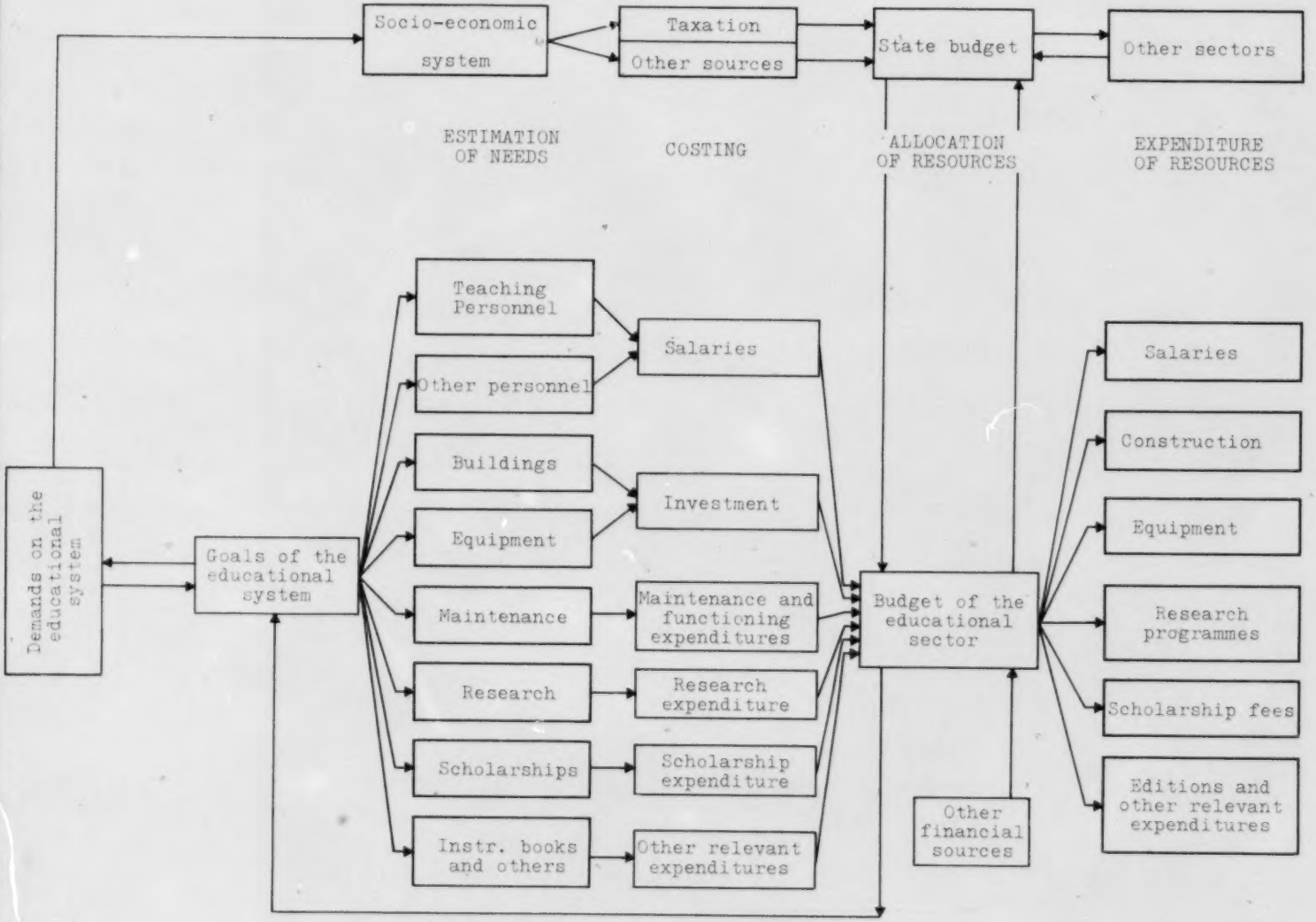
2) Ozbekhan, op. cit., p. 137.

3) Ibid.: p. 139.

4) The basic idea and perhaps the only merit of PPBS was the integration it attempted between long-term policies and short-term decisions. The unsuccessful introduction of PPBS in the governmental machinery was due to the existing strong administration and the failure to reinforce the executive part of the administration. The initial relative success that PPBS had in the Department of Defence in the United States was related to a very strong executive and a very powerful strategic concept.

Diagram 3

PLANNING - PROGRAMMING - BUDGETING FRAMEWORK



leading to the preparation of the annual budget, and, to a lesser extent, with decisions concerned with implementation, i.e. the spending of the financial resources. These types of decisions fall into the administrative level.

The work followed the sequence shown in Diagram 3 which emphasizes the links between the strategic, operational and administrative decision-making. From a financial point of view, the link between the operational and the administrative levels is the annual budget.(1) This link is obviously much stronger operationally than the link between the strategic and the operational levels, which is made-up by the long-term goals of the system. These long-term goals usually alter when there are politically determined changes at the executive level.

The Greek project looked at decisions about the estimation of various inputs and their costing and the existing communication between the Ministry of Education and the Ministries of Governmental Policy and Planning (for capital expenditures) and Finance (for current expenditures and the procedures for effecting the budget). The analysis identified some problems of a similar nature to those identified in Portugal and Turkey. The most serious one relates to the existing relationship between the Ministry of Education and the Ministries of Governmental Policy and Planning (responsible for the overall governmental planning work) and Finance (responsible for the preparation of the annual public budget).

These relationships reduce the autonomy of the Ministry of Education both in setting educational policies and financing the educational programmes necessary for their execution. Although some policy interfaces may exist among the various governmental bodies (e.g. the Ministerial Council), they do not suffice for the development of a long-term educational strategy and its effective implementation. In other words, the logical steps indicated in Diagram 3 are not followed and they cannot be followed when the Ministry of Education has to rely on annual rather than long term budgeting. The system's goals are therefore set ex post (after the financial constraints are known) instead of ex ante to financial constraints. Under these circumstances the system is obliged to forego a positive policy - making attitude and simply adapt to financial constraints imposed upon the system by its supra-system: thus its autonomy and flexibility are reduced.

In the case of Portugal an effort was made on the part of the planning unit of the Ministry of Education to cope with this situation by maintaining continuous communication with the Ministry of Finance whilst the five-year educational plan was being prepared.

It is arguable that in countries where central planning agencies operate and the formal educational system is almost entirely a public enterprise, financially controlled through the annual governmental budget, the executive agency of the educational system, i.e. the Ministry of Education, should be given increased autonomy both in establishing an effective educational policy (plan) and in implementing it. Such autonomy implies the following:

- the Ministry of Education should have full responsibility for overall educational policies and should set up effective planning structures to reinforce normative and strategic decision-making;

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1) In a programme budget the annual budget is part of a longer term budget which extends over the implementation period of a particular programme. In such a case the operational level is responsible for preparing both the programme budget and the annual one in accordance with the goals set at the strategic level.

- an effective planning-programming-budgeting procedure will facilitate the setting of financial constraints in relation to policies. In this way the implementation of policies will not be hindered by financial constraints but, by taking these into account, they can be implemented within the appropriate time period;
- the Ministry of Education should have greater autonomy over resource spending through the establishment of appropriate financial control mechanisms which will not create unnecessary delays in the implementation of projects;
- a project should not be controlled financially on the basis of its very small elements but in relation to its entirety. On several occasions, overall project implementation goes wrong simply because there are unnecessary delays caused by continuous checking upon every single item of spending.

3. The Portuguese Project: The Programming Phase

As mentioned earlier, it seems that the bulk of the work in the Portuguese project falls within the strategic level, since it deals with the preparation of a six-year educational plan. However, because of the detailed technical work being done in anticipation of a PPB system in the future, much of the programming work done by GEPAE falls into the operational decision-making level as it is defined in the conceptual framework presented in this report.

The programming of specific activities, for implementing the overall educational strategy adopted, was done in two three-year periods (1974-76 and 1977-79).(1) This work which led to detailed estimates by level of education of both current and capital expenditure was directly integrated into the overall national development plan. The successful integration implied continuous revision of the educational plan in order to account for the constraints imposed on it by the central planning office.

The above work indicates that strategic and operational planning in Portugal seem to be well integrated. What does not clearly emerge from the report, however, is the degree of integration between the operational and the administrative levels. In other words, whether the resources considered in the six-year plan will be ultimately secured and whether they will be spent according to the provision of the plan.

In the hands of the executive, the plan becomes an effective tool of control over the preparation of the annual budget just as the annual budget is used to control the projects' implementation. It is obvious that the successful implementation of the system's overall objectives and general policies depends on the effective integration of all four decision-making levels.

E. The Administrative Decision-Making Level

The Greek Project: The "Decision-Making" Sub-System

A part of the Greek Project was devoted to the study of the "decision-making" sub-system of the educational system, defined so as to correspond to the Administrative level. In other words, the sub-system incorporates decisions of a rather routine nature to be taken within a more or less pre-determined decision-making frame. These decisions are subjected to pre-defined constraints such as administrative rules, legislation, etc., which are part of the output of the policy/decision level.

The principal objective of the study of the "decision-making" sub-system was the evaluation of the deciding process. Blockages in the system were to be identified together with the relative importance of particular decisions in order to facilitate an eventual relocation of decision-making authority.

(1) See Vol. IV: "A Six Year Plan for Action", of the main report submitted by the PORTUGUESE team.

The bulk of the decisions analysed in the Greek Project fall into the central administrative structures, but because of their nature they could be seen within the broader administrative structure which includes the regional and local levels. From this point of view, and insofar as i has to do with redesigning the structures of the administrative sub-system the Greek project relates to the Turkish one which is discussed in Part III.

The establishment of the relative importance of the various decisions can be used to study the degree of centralisation of the Greek educational administration, as will be shown below. The analytical work was carried out in two dimensions: the organisational one, in which organisation factors are taken into account, and the functional one, in which the particular activity related to a decision is analysed.

For the organisational analysis, decision-making flow charts for the major decision points were developed in order to show:

a) all those involved in the taking of a particular decision (authority line):
b) the administrative framework within which the decision has to be taken (administrative rules, legislation, etc.) and
c) the means and techniques used in taking a decision (i.e. how information is processed).

A list of the various decisions which have been analysed, together with a small sample of flow-charts, are shown in Appendix A of the Greek summary report.

The functional analysis, which was made parallel to the organisational analysis, aimed at establishing the relative importance of the various decisions. The idea here, was to find a way to classify decisions according to their relative importance which was seen as a function of three main variables: the type of decision, the duration of a decision's effect upon the system, and the number of the system's elements which could eventually be affected by the decision.(1) The main lines of the technique followed in the Greek project are presented in the summary report and it is not necessary to repeat them here.

Because of the provisional nature of the work it was felt that until the technique could be refined, it would not be advisable to calculate the relative importance of decisions which have been analysed, on an organisational basis. For this reason the calculations were made on a small sample of the various decisions and their results are shown in Tables 6, 7 and 8 of the summary report in Vol. II. These indicate that for most of the decisions, irrespective of their scores, the ultimate "decider" is the Minister of Education himself.(2) This documents, of course, the general impression of the centralised nature of the Greek educational system. It seems, however, that the deciding process is even more centralised than it first appears. At the same time, it is evident that the scores for each decision offer a basis for studying ways of decentralising the system.

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1) As is mentioned in the summary report, more variables can be used for establishing a decision's relative importance. For a more detailed listing of such variables see Appendix B of the Greek Summary Report in Vol. II.

2) This indicates a reduction in the decision-making hierarchy of the Minister from the Executive to the Administrative level. It also explains the great delays in decision-making as well as the lack of time at the Minister's disposal for serious deliberation on policies rather than routine decisions.

Decentralisation in the real sense of the word should be seen in relation to the degree of autonomy enjoyed by a particular sub-system and/or geographical area of the country. This is made clearer in the case of decisions affecting a university establishment. All three decisions presented in Table 8 of the Summary report pertaining to the establishment of a chair an assistant's post and the election of a Rector are subject to the Minister's approval. This shows that in reality the universities are not autonomous even with respect to these types of decisions(1). Ministerial involvement in university decision-making reduces the effectiveness of the Minister's control function. The various segments of the community obviously represent certain control elements but it is the Minister of Education who plays the principal role in evaluating the university's overall performance. However, by engaging himself in actual university decision-making (thus identifying himself with it), the Minister is deprived from his control (evaluative) function over the University. In this case the evaluation function falls entirely to "outsiders" who in their evaluation of the university's performance are also evaluating the Minister himself.

When discussing the location of decision-making authority the number and type of agents who participate in the taking of a decision should be taken into account. This is associated with what is usually termed "degree of democratisation" in a decision-making system. The political nature of this issue is evident and beyond the scope of the present paper. It may, however, be useful to complement the overall discussion with some "technical" considerations related to participation in decision-making(2) since the objective is to identify ways of increasing the quality of the output of the decision-making process. The very issue of participation is linked directly to the problem of whose preference function should be considered when taking a particular decision. (The ideal situation would be that the preference function is representative of all those involved.)

A decision involves at least three groups of people: those who are formally in charge of deciding; those who are directly affected by a decision; and those who are indirectly affected by a decision, usually those who have to implement it.(3) The importance of each of these three groups in deciding on a particular decision depends on the nature of the decision. It is evident, however, that the views of all three have to be taken into account in a weighted manner if the representative nature of the preference function to be used is to be widened.

Even when direct participation of all those involved is not feasible (sometimes not even desirable), for political and/or technical reasons, there should be "indirect participation". This could be done through the selection of information reflecting the

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1) Though the situation is not exactly the same at present, the main argument still applies.

A note of warning is in order here. The autonomy of the university is discussed vis-à-vis its supra system. An autonomous university, however, can be governed in a centralised manner, i.e. its various elements and/or sub-systems (faculties, students, etc.) having zero degree of freedom on university policy/decision-making. In this case we can speak of centralised-decentralised university policy/decision-making in exactly the same way as we speak of the whole educational system.

2) For a broad discussion on the issue, see: OECD Participatory Planning, op. cit. It is evident that the discussion covers all types of decisions.

3) A decision, e.g. on curriculum development, involves the following groups of people: the students who are directly affected by it; the teachers who have to teach a particular subject and who are thus indirectly affected; and the curriculum development agency which because of its synthesis may not incorporate elements (such as teachers and students) who are directly or indirectly affected. The group of those indirectly affected could be enlarged to incorporate various elements and/or groups of a society, e.g. parents (who sometimes can be considered as directly affected).

views of the various groups involved which thus participate indirectly in the deciding process. This "marketing" type of activity will help both in policy setting and in other major decision-making.

Part III

THE STUDY OF ADMINISTRATIVE STRUCTURES

The Turkish Project: Regional and Local Administrative System

The Turkish project concentrated on the study of regional and local administrative sub-systems of the education system. It attempted to evaluate actual operations with a view to suggesting changes aimed at increasing the efficiency of the administrative sub-system in implementing the objectives of the educational system. Although the Turkish and Greek projects have much in common, it was thought appropriate to discuss the Turkish project under separate headings in order to facilitate a discussion related more to the design of administrative structures rather than to their actual behaviour, as in the Greek case.

The main purpose of the project was to study the existing administrative set-up of the formal educational system at the regional and local levels with a view to:

- analysing the administration and possibly evaluating its performance;
- suggesting changes, where necessary, to increase its effectiveness;
- making a contribution to educational research through a concrete case-study.

The project concentrated on the provincial and local levels because previous attempts to study the Turkish educational system had dealt with the central administration and had generally ignored the regional and local systems.(1) There are two reasons why local and provincial levels should be considered:

a) the central and provincial structures form a unity and therefore cannot meaningfully be studied separately;
b) the responsibilities for carrying out the educational activities and meeting the objectives of the educational system fall mainly on the provincial and local administrative systems.

It therefore becomes obvious that:

i) any changes made at the centre without corresponding changes at the provincial and local levels will tend to be meaningless in terms of actual results: and
ii) changes at the regional and local levels seem to bear relatively more importance for the overall effectiveness of the administrative system than those at the central structure.(2)

The project was initially designed to cover the following stages:

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1) The last study of the reorganisation of the central structure took place in 1971 through a joint study by the OECD and the Turkish National Ministry of Education. The provincial and local administrations were not included. Data from studies of the central structure were considered in this project.

2) Although these reasons may justify technically why the present study focussed only on regional and local administrative structures, the fact that this study did not cover the central structure in Turkey is acknowledged as one of its limitations.

Phase I

Stage A: Analysis of the existing situation

Stage B: Evaluation of the results obtained at Stage A.

Phase II

Stage C: Design of necessary changes

Stage D: Evaluation of the designed changes.

The purpose of Stage A was to collect all the information necessary for an evaluation of the functioning of the administrative system. At Stage B the evaluation of the system's operation was to be undertaken on the basis of the information gathered in Stage A.

In Phase II, an effort would have been made to design, propose and evaluate a change-model to replace the existing one. In addition, the programming phase (i.e. the estimation of the necessary resources, the agencies involved and the time period envisaged) for the implementation of the proposed and eventually adopted change- model would have followed.

Only Phase I was covered and the discussion will therefore be limited to the effort devoted to the two stages of Phase I, i.e. the collection of the necessary information and the evaluation of the system's performance, which resulted in the identification of the major problems in the system's operation.

Stage A

The description and analysis of the system was done on the basis of information taken from legal documents reporting on the rules and regulations governing the functioning of the Directorate of Provincial Education (responsible for secondary education) and the Directorates of Primary Education (Appendix B of the Turkish Summary Report in Vol. II). Supplementary information was taken from reports presented at a seminar for the Directors of Education in Izmir, in 1971, as well as from studies conducted by the Organisation and Methods Bureau of the Ministries of Education and Interior.

According to the existing provincial administrative system in Turkey each Province is under the authority of the Governor, who is responsible for all governmental activities in his Province. The Governor is accountable to the Ministry of Interior. Insofar as the educational administration is concerned the Governor has direct control over the activities of the Directorate for Elementary Education. The Director for Elementary Education is therefore accountable both to the Governor and the Ministry of Education through the Directorate of Education. This practice is a source of conflict and gives rise to many problems.

The Directorate of Education, which is responsible for secondary education is controlled less by the Governor than by the central educational administration. This differential status of the Directorate of Secondary Education vis-à-vis the Directorate of Elementary Education is another source of conflict.

Alternative change-models for this general level would have proposed either that both directorates be independent of the governor and directly accountable to the central educational administration, perhaps through a provincial general director responsible for both elementary and secondary education, or that both directorates come under the Governor perhaps with a deputy-governor for educational matters. These two alternative models were presented in the questionnaire to the field practitioners for comments.

Apart from these two principal sources of conflict, there are others at all levels, the main causes of which seem to be the following:

- lack of authority to carry out the various functions;

- vagueness in the relationship between functions and authority;
- frequent violation of existing rules and regulations;
- inadequacy of existing principles for personnel appointment and transfers.

Stage B

The evaluation of the system was based almost exclusively on information gathered with the help of a specially designed questionnaire. As expected, there were great variations in opinion on each of the issues. Opinions tended to reflect the role and biases of respondents, and the natural predilection to protect and further vested interests. Nevertheless the data thus obtained provided extremely useful information shedding light on some very complex and controversial problem areas. More particularly it provided information on the following:

- personal characteristics of the respondents, i.e. those in the principal administrative posts;
- problems experienced by provincial administrative personnel in carrying out their functions;
- suggestions for improving educational organisation at both provincial and local levels;
- suggestions for an administrative change-model, linking the provincial to the central administration.

The questionnaire, which was designed on the basis of interviews and previous studies, can be divided into three main parts: Personal information about those interviewed; particular administrative practices; "problems" and/or causes of conflict and problems and their importance for the system's operation. (See Appendix C in Vol. II). It was distributed to the following groups of people on a sample basis:

- Directors of Primary Education;
- Inspectors of Primary Education;
- Secondary School Principals;
- Assistant Directors of Education;
- Directors of Education;
- Deputy Governors (responsible for educational matters);
- Principals of Regional Boarding Schools.

The sample was based on two criteria:

a) the number of provinces;
b) the size of each group.

Thus, the survey was carried out in 23 of Turkey's 67 provinces. The replies received, as well as the major conclusion drawn from the survey, are presented in detail in the summary Report and it is not necessary to repeat them all here. However, in order to give an indication of how the evaluation of the system was made, a brief discussion of two principal questions is in order.

The respondents were asked to express their views on three administrative change models: the existing one; that which puts all educational provincial activities under the direct responsibility of the Ministry of Education through a regional (combining several provinces) Director-General, and a third which is similar to the second, but on a provincial, as opposed to a regional, level. As expected, the preference of those directly involved in educational matters was divided almost evenly (with slightly higher support for the third model) between the two models which deviate from the existing one.

Their wish is for more autonomy from political authorities over educational authorities. On the other hand, the Deputy Governors opposed these two models and expressed their support for the existing one, indicating, however, the need for some changes.

The second item which merits discussion concerns those questions relating to a number of potential "problems" that the research team identified through previous interviews and research. These problems were presented in two groups:

a) Group I. (relating directly to the respondents' professional role):
   1. Inadequacy of funds.
   2. Lack of authority.
   3. Vagueness of duties and authorities.
   4. Frequent demands contrary to the principles and plans (in operation).
   5. Inadequacy in the basic principles on personnel appointments and transfers.
   6. Limiting effects of the laws governing the provinces.
   7. Insufficient number of personnel.
   8. Insufficient number of qualified personnel.
   9. Insufficient means of transport.

b) Group II. (general problems - not specifically related to individual professional roles):
   1. Uncertainty regarding which duties will be carried out by the province and which duties will be carried out by the Ministry within the province.
   2. Doubt about the objectivity of the members of the provincial Disciplinary Committee of Public Education.
   3. Lack of clarity about the duties and authorities of administrative superiors, Directors of public education and school principals.
   4. Lack of experience of school administrators.
   5. The planning of educational and instructional affairs in the provinces is not based on research and studies made throughout the province.
   6. When the educational and instructional affairs of the provinces are prepared by the Ministry, the ideas and opinions of the Director of Public Education do not receive sufficient attention.
   7. Educational appropriations are not divided in a balanced way between general and technical instruction.
   8. The fact that the authority to distribute funds from the general budget for operating expenses is not under the direction of the province.
   9. The fact that the province has limited authority in determining needs for investment.
   10. Appropriations are not made in accordance with needs.
   11. The equipping of schools in the province is not made according to a plan and programme.
   12. The plans and programmes for equipping of schools in the province are not carried out as expected.
   13. Having to obtain the necessary expenditures for provincial public education from two different budgets: the central budget and the local administration budget.
   14. The authority and responsibility for building construction affairs are not concentrated in the hands of one unit.
   15. Being too dependent on other ministries for personnel affairs of the Ministry of Education.

16. Failure to carry out educational affairs in co-operation with the community, being caused by pressure groups in the community having too large a role.
17. Inadequacy of the present regulations governing co-operation with the community over educational affairs.
18. School principals have no authority to grant leave to teachers even for valid legal reasons.
19. The Directors of Public Education are too dependent on the Governors.
20. The widespread conviction that appointments and transfers are being made contrary to regulations and criteria.
21. The fact that administrators do not generally exert their authority fully.
22. The fact that the Directorate of Public Education is not the only centre for the co-ordination of educational and instructional affairs in the province.
23. The fact that there are no common criteria developed with the participation of inspectors, administrators and teachers to evaluate educational and instructional affairs.
24. The fact that reports and suggestions sent to the Ministry after inspections are not taken sufficiently into consideration.
25. The fact that the teaching records used to evaluate teachers are inadequate.
26. The fact that inspection and investigation are carried out by the same persons.

The following problems were found to be very important, occurred very frequently, and were thought not difficult to solve. Priority therefore should be given to their solution: Nos. 3, 4, 6, 20, 21 and 24 in Group II.

How effective is this methodology in evaluating an administrative system? Should one have confidence in the judgements made by the respondents? Problem No. 3, for instance, indicates that there is vagueness concerning the duties and authority of the various administrators. This phenomenon appears in almost all administrations and it will never cease to exist whatever the degree of precision incorporated in the legal documents. Moreover, there is a tendency in legal documents to allow for some vagueness in order to make the system more flexible and avoid the need for continuous revision of regulations. Even if this problem is considered to be serious it is questionable whether a formal reduction of vagueness is an easy task as it is suggested.(1) Referring to problem No. 4, it can be seen that increasing the experience of school administrators would not be an easy task. What may be more easily attainable is increasing their knowledge about school management.

It is clear that the methodology followed provides only general information on problem areas rather than precise definitions and prescriptions. It is imperative that the results be not considered as more than indicative of problem areas where more

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1) It would be interesting to attempt to explain the respondents demand for more precision in role definition, on the basis of what was said in page 13 of this report. Loosely defined roles provide the chance for innovative decision-making; it seems, however, that either the Turkish educational system does not tolerate innovation, which means that the local educational administrator has to continuously consult with his superiors before deciding, or the local administrator is not prepared (or willing) to innovate. In any case, it seems evident that loosely defined roles help innovation at the local level, something which has to be exploited should innovation become a goal of the educational system.

intensive work is needed. The principal virtue, and, at the same time, the basic weakness of the methodology lies in the fact that the information gathered came from those directly involved in the problem situation under investigation. It was therefore simultaneously informative and biased.

The results of this study could be strengthened by the following additional work:

a) Role Analysis: A role analysis of each of the principal administrative posts (offices) should be undertaken. Problems in fulfilling the functions assigned to each role should be identified. The relationship of each role, the overall objectives of the system and other roles, including those at the central administration, should be made clear. The team has collected sufficient information to undertake the analysis without too much additional effort. It is proposed that the analysis cover the following roles:

Central Administration
- General Directorates
- General Directorate of Personnel

Provincial Administration
- Governor, Deputy Governor
- Director of Education
- Assistant Director
- Director of Elementary Education
- Inspectors of Elementary Education
- General Inspectors
- Secondary and Primary School Principals
- Principals of Regional Boarding Schools
- Teachers
- Parent Committees

b) Function Analysis:(1) The analysis of the administrative (management) functions (or processes) is a more comprehensive methodology than role analysis in that the objective is broader. It incorporates not only the roles (or duties) of the various decision-making points (or offices) but also entire functions (together with all their functional activities) of the educational system such as: financing, staffing, etc.(2) In this type of analysis all decision-points contributing to a particular function(3) under study are analysed simultaneously. This vertical type of analysis, which should cover all echelons of the hierarchy, helps to evaluate the effectiveness of the system by functions as well as by structures, since it considers all decision-points (offices) at the same time.

An additional advantage of this methodology is that it contributes directly to the synthesis stage, i.e. the design of the necessary changes- which may range from minor ones to drastic re-organisation of major departments by grouping and/or regrouping

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1) Functions in this context should not be associated with the system's objectives, but rather to those processes necessary for meeting the system's objectives.

2) J. Forrester in his proposed methodology "industrial dynamics" for the study of organisational dynamic behaviour, treats the above functions as flow systems (or networks) using the "Information network" as the interconnecting tissue between all of them: J. Forrester, Industrial Dynamics, the MIT Press, MIT Cambridge 1965.

3) A decision-point may contribute to more than one function.

functional activities and delegating administrative authority accordingly.(1) On the other hand, it allows for the study of the effective degree of decentralisation by function and its direct relation to the central administrative organisation. This is of particular interest to the Turkish study of the provincial and local administration in a rather centralised educational system.

The following are the primary functions to be considered in a similar study of the educational system:

Policy/planning (overall and by level of education)
Control-evaluation (overall and by level of education)
Staffing (recruitment, promotion, transfer, evaluation, (re) training, etc., by level of education).
Financing (Securing and spending of necessary financial resources by level of education).
Construction and Maintenance of School Buildings(2)
(planning, financing, controlling by level of education).
Teaching-learning (transformation process: teaching techniques, curriculum development, textbooks, performance evaluation, etc., by level of education).
Pupil/student admission (flows) (planning, establishing admission criteria, examinations, certificates, etc., by level of education).
Educational research and development (by level of education).

The organisational study of each of the above functions of the educational system would provide the analyst with an unique opportunity to question the autonomy which the provincial and local administrative levels enjoy and/or should enjoy and allow him to suggest changes for more or less decentralisation.(3)

The question of the degree of decentralisation required by the educational system is frequently raised, although there is rarely even theoretical agreement about it. There are certainly arguments for and against both centralisation and decentralisation but given the nature of the educational system there seems to be an increased preference among the "educators" for decentralisation.(4) In Turkey, this argument is reinforced by the size of the country and the rather poor transportation system which impedes communication with the centre. The Turkish study revealed other important motivations: the provision of more autonomy to the regions, for decisions on broad educational

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1) The study of the central administrative organisation of the educational system in Turkey done in 1971 by an OECD team under Prof. M. Kogan, was based on an analysis of duties by office as well as an analysis of the "operational functions" necessary for pursuing the system's objectives. M. Kogan, "The Organisation of the Turkish Ministry of Education", OECD Report 1971. For a discussion on principles of basic departmentation see: Koontz and O'Donnell, Principles of Management: An analysis of Managerial Functions, McGraw-Hill, 1968, International Student Edition, Kogakusha Co., Tokyo, 1968, pp. 259-278.

2) This function can be incorporated into the financing one as it is usually done by considering current and capital expenditure.

3) The study of Financing and overall Planning functions in the Turkish case revealed that these two very important functions are not controlled by the educational system itself but by the Ministry of Finance and the Central Planning Organisation respectively. This practice reduces the overall autonomy of the educational system in Turkey affecting adversely its effectiveness.

4) See for example: W. Brand, "Some Reflections on Centralization and Decentralization in Education", in OECD Organisational Problems in Planning Educational Development, Paris, 1966.

principles and for control at the regional level of all important day to day education functions, such as staffing, financing and school building construction.

The degree of decentralisation to be granted to an educational system should, of course, be seen in relation to the overall socio-political structure of the society where it operates as well as to the developmental level of the regions and localities at each particular period of time. This, however, should not be taken as an excuse for restricting the regional educational autonomy, when the overall socio-political structure is centralised and/or the level of development is low. Indeed, it can be argued that decentralisation is in itself an educative force because of the demands it makes upon those it seeks to involve in educational decision-making.(1)

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1) For a broad discussion see: Participatory Planning in Education, op. cit.

Part IV

CONCLUSIONS AND RECOMMENDATIONS

A. Findings

The discussion of the three country case studies was undertaken within the conceptual decision-making framework presented in the introduction in order to show among other things the existing functional interdependence of the four decision-making levels. This functional interdependence implies interdependence vertically and horizontally of the corresponding planning and control sub-systems. Some of the eventual implications for educational planning and decision-making in general have been directly indicated throughout the discussion. As a concluding chapter, however, it would be helpful to recapitulate in the light of some of the most important findings and bring out the overall consequences for effective educational planning and decision-making.

The educational systems of the three countries are administratively centralised. In such systems the school units have very little, if any autonomy in setting and pursuing their own major goals. School units are thus turned largely into passive implementors of decisions taken at the ministerial level. The decisions taken at the school level therefore are typical, and represent an expansion of the administrative sub-system of the educational system beyond the lower ministerial echelons.

1. Shortcomings

The educational systems in the three countries seem to suffer from the following shortcomings:

Normative Decisions

Policies are set on the basis of reduced information pertaining to the educational needs of the individuals and the various social systems including the educational system itself.

Strategic Decisions

The implications of the policies set in terms of the necessary resources needed for their implementation and their eventual impact on the performance of the system, are neither adequately studied in advance (planning function), nor are their actual results evaluated against the educational system's policies (control function).

Operational Decisions

Ad hoc educational projects are initiated on the basis of the provisions made in the annual budget and in the absence of a programme plan designed in relation to educational policy objectives.

Administrative Decisions

Routine decisions are usually in conflict with new policies and new attitudes. Too often the opportunity to introduce new classroom practices is frustrated by the necessity to conform to obsolete administrative rules.

2. Responsible Factors

The following factors have been identified as being mainly responsible for the above shortcomings which reduce the educational system's effectiveness:

a) The centralised nature of all three systems. This causes them to behave as relatively closed systems showing increased reluctance to receive and process environmental information. As is shown in the Greek case, there is almost no formally established communication between the educational system and the constituent parts of its environment. Evidently, the educational system fails to be informed of the needs of its client population in order to set its policy objectives accordingly.
This initial disonance between educational policies and the educational needs of the society to be served is accentuated at lower levels by the inability and/or discouragement of the existing structures to feed back the necessary information for the system's adaptation.

b) The structures responsible for strategic planning, with the exception perhaps of those of Portugal, are not adequately developed. They are ineffective both in estimating the best strategy for implementing the policy objectives of the system and in providing the executive level with the necessary information for subsequent modification and evaluation of policies. In the case of Portugal, although the strategic planning structure was adequately developed, its integration to the executive level was loose, resulting in communication gap between the two structures.

c) In an overall centralised governance system of which the formal educational system is a part, the practice is to develop a centralised financing sub-system which cuts across the various ministries. This practice, experienced in all three countries, reduces the autonomy of the educational systems in setting their policies ex ante to financial constraints. Lack of self-control over the financial means at the educational system's disposal seems to be one of the major factors which contributes to very short-term decision-making in the three countries. In the case of Portugal, however, the five-year plan of the Ministry of Education was made consistent with the five-year socio-economic plan for the country as a whole through effective communication between the educational planning and the central planning offices. The necessity for as much integration as possible between the strategic and the operational planning is evident. Strategic planning will succeed if it is well integrated with both normative and operational planning.

d) Routine decisions at the administrative level are taken on the basis of specific rules and regulations designed by the superior decision-making echelons at a particular time. As educational policies and people's attitudes change, however, these regulations are not changed accordingly. This makes the administrative decision-making sub-system's behaviour conservative, reactionary and ineffective. Decisions at this level usually are in conflict with people's expectations thus contributing to people's dissatisfaction inside and outside the educational system.
At the school level current teaching and learning practices are often objected to by most of those teaching who have had the chance to expose themselves to new techniques. Innovations at this level, the most critical for the overall system's effectiveness, often fail because they strike against traditional practices and rules which though obsolete, remain very powerful.

Administratively centralised educational systems seem to suffer especially at the school level. The Turkish example is very representative of the situation in the other two countries. The problem is due to lack of communication between the localities and the central administration. The central administration exercises a dominant role over the regions, and is often ignorant of their specific educational needs. To cope with this situation the current practice is to increase as much as possible the standardization of teaching and learning, which eventually results in the reduction of the system's effectiveness in meeting the specific educational needs of the individuals, the regions, and the society as a whole.

B. Implications for Planning

It is not easy to prescribe the necessary steps toward increasing the effectiveness of the educational systems in the three countries under review. Some general recommendations, however, emanating directly from the preceding discussion could be made. In the first place, it will be necessary to ascertain the degree of autonomy which the various parts of the educational system in each country are likely to have in the future. It is obvious that there are two general alternatives: (1) that the degree of centralisation in each system will remain the same; or (2) that increased autonomy will be granted to the various educational sub-systems. For the purposes of this report, the assumption is made that the first of these alternatives will apply, at least for the next decade or so.

Although it is concluded that increased decentralisation, in the sense of making more autonomous the various parts of the educational system, is highly desirable, it seems that even under the existing degree of centralisation there is plenty of room for innovations and changes in the educational systems of Greece, Portugal and Turkey which could definitely increase the systems' effectiveness. On the other hand, it should not be forgotten that one of the virtues, perhaps the most important, of centralised systems is the potential they have for ensuring adequate coordination of their various parts as against the greater difficulties in this area of decentralised systems.

It was found in the Greek and Turkish cases that their educational systems behave more or less as closed systems deprived of much environmental information. In the Portuguese case there was an attempt to increase communication between the educational system and those affected by its decisions, but it was done ex post to initial normative decision-making. It seems, therefore, that the most general recommendation for all three countries would be for an effort to open up the educational systems as much as possible. This may be achieved by establishing formal communication channels with all social systems involved in educational matters, and by enabling the human elements of the educational systems to increase their information intake by directly surveying and studying the educational needs of individuals and the social systems.

This type of information will help at the normative level to set the objectives of the educational system in accordance with what is actually needed. As was shown in the Greek case, the system's failure to decide on the most pertinent objectives was mostly due to its ignorance of the actual educational needs of the society. Ignorance is increased when democratic political procedures established for providing the governance system with the necessary informative signals about the group's satisfaction or dissatisfaction do not properly operate. In such cases the centralised educational system tends to set its objectives strictly according to its own preferences, with little regard to those of the larger social system.

Taking into account the structure of the educational systems of these three countries, it seems realistic to believe that from the point of view of planning

mechanisms the effort should be placed on the strategic rather than normative planning. This, of course, does not mean that normative planning aspects should be neglected. On the contrary, they should be greatly emphasized but be undertaken by the strategic part of the system. In structuring this proposal the Portuguese model may help. In other words, the educational systems should see to it that they are endowed with effective planning offices, staffed very carefully and placed directly under the Minister of Education. In this way, it is hoped, the integration of normative and strategic levels will be accomplished, thus increasing the likelihood that the Minister will make use of the technical services of the planning office in both the setting and the evaluation of the system's objectives.

In the proposed structure it is obvious that the responsibility of both the normative and the strategic planning (decision-making) should be located within the planning office. The functions of such a planning office would include the following:

- help the Minister establish his "educational philosophy";
- translate this philosophy into broad educational policies;
- design alternative strategies for implementing the broad policies and help the Minister to select the desired alternatives which meet some accepted criteria;
- secure inside and outside the system broad acceptance of the policies and the means of implementation;
- secure the necessary inputs for the successful implementation of the policies.

Ministers typically have a personal "educational philosophy" or the responsibility of implementing the particular philosophy of the government they serve (or a combination of both). In many cases, Ministers lack information which would enable them to check both the broader acceptability and viability of such philosophies. A function of the planning office's suggested work is to provide data which will enable Ministers to fill this gap. These data will be produced using such devices as "marketing" surveys indicating the educational needs of individuals and those parts of the society which are directly affected by the educational system's activities and outputs. It may also be necessary to provide data on the educational system's history. It should be repeated here that at this stage the feasibility criterion has not been considered. The strategies are initially designed under the assumption that the inputs necessary for implementing the policies set can become available. This assumption, of course, may be modified later on, but as one of the functions of the strategic planning is to ensure the system's external stability, it would be necessary that the system attempt to secure all resources necessary to meet the input demanded by a particular strategy. The Minister has to use his authority toward that end. The planning office will help him by providing supporting information for convincing those responsible for financing and appropriating the necessary resources.

A constant problem which must be faced is achieving a realistic link between strategic (long-term) educational objectives and the operational necessity of short-term or annual budgeting. It is suggested in this report - and the Portuguese model is appropriate in this respect - that more adequate programme planning and budgeting procedures should be developed. To work successfully, such procedures have to be installed not only in the Ministry of Education but also in the Ministries of Planning and Financing. It is only under such a procedure that restrictions in the annual budget will not have potentially catastrophic effects on the selected educational strategy. Indeed, such an approach helps to ensure that the main effect of budgetary cuts is simply an extension of the time period originally designated for the implementation of a strategy, rather than an abandonment of the strategy itself. The additional advantage of the existence

of such a planning-budgeting procedure in the three countries under review is that it may safeguard the implementation of desirable educational strategies by discouraging new political leaders from automatically obliterating previous policies without regard to their intrinsic merit.

Apart from financial resources there will be need for a careful estimation of all other resources such as manpower, school buildings, and equipment of various types, and the capacity of the economic system to produce them. The Portuguese case provided an excellent example of problems associated with misestimation of resources: the two most important bottlenecks in the implementation of the proposed new educational structure within the time period desired were teaching personnel and school buildings. Even when financial resources were readily available, the provision of teachers and buildings in the quality and quantity desired could not be made immediately available because of the time lag involved in their production.

All these factors should therefore be taken into account at an early stage of the analysis and evaluation of the educational system's objectives, i.e. at the strategic level in order to prepare a long-term plan for the educational system's development.

Diagram 3 which was employed in the Greek study depicts the various steps from goal setting to annual budget formulation. In this diagram estimation of real inputs precede their costing in order to arrive at the annual budget, taking fully into account the system's goals. These steps lead naturally from strategic to operational planning. The crucial question at this point relates to the structures in charge of strategic and operational planning.

There are several structural models that one could consider. In the Portuguese model, for example, most of the operational planning work is done in the same planning office where strategic planning is taking place. The advantage of such structural arrangement is that it increases the integration of strategic and operational planning, a pre-condition, as was argued earlier, for successful planning work. The only reservation which was raised when discussing the Portuguese case, relates to the degree of integration which such a structural arrangement will permit with the administrative sub-system, the most developed sub-system in these countries. Because of the overall governmental structure, the ministerial budgets are prepared in accordance with either the previous year's experience or with some criteria set by the Ministry of Finance. This practice, as was argued in the Greek case, decreases the need for communication between the budget people and those of the education planning office. The inevitable result is a reduction in the effectiveness of the planning process.

An additional aspect, which does not emerge clearly from any of the three studies, relates to the lower administrative level, including the school units. It has to do with the communication between operational planning and administration (i.e. those responsible for the execution of programmes). The administrative sub-system, because of its role and position within the total structure of the educational system, is the one most aware of needs and functions, especially of the school units. The importance of the contribution that the administration can make to programme formulation is therefore obvious. What has to be assured, however, is that programmes are made relevant to the educational system's overall objectives, something which is not always the case, especially when the administration is given increased autonomy for programme formulation.

Though no single model could be proposed as universally applicable, for the purposes of this report, it is suggested that one model which should be considered is that which proposes that all basic administrative divisions in education - such as the Directorates for Primary, Secondary and Technical Education - be allocated planning

offices whose role would be to operate as middle levels between the operational planning sub-system and the Administration. Some of their specific tasks would include data collection and preliminary analysis in order to help the identification of the educational system's needs. This information would be fed to the main operational sub-system located, as was discussed earlier, in the main planning office attached directly to the Minister of Education.

In the Portuguese and Turkish cases, however, it seems that the general Directorates are not endowed with their own planning offices. In Greece, on the other hand, they do possess planning sections, but there is no significant central planning office at the Ministerial level. A proposal made for the creation of a Directorate of Planning met with objections from the other specific purpose Directorates and it is only recently that it has been implemented but not as yet well structured and developed. The recent decision for the creation of a centre for educational studies and research (KEME), directly under the supervision of the Minister of Education, gives the centre responsibility for a limited degree of planning, though without making the necessary provisions for effective communication with the general Directorates.(1) Of course, supplying planning offices to specific Directorates involves the risk that their autonomy will increase to the point where they distort the coherence of the overall system and frustrate the central objectives. However, this does not suggest that planning sections' autonomy be limited, but rather that it be developed in such a way as to maximise integration and harmony within the system as a whole.

It should not be forgotten that from a decision-making point of view, operating under conditions of increased autonomy is very different from working under centralised decision-making in the sense that the sub-systems which have increased their autonomy have to take decisions of a high order - i.e. decisions which were taken previously by the higher echelons of the system - an operation which has to be learned. The same applies to local administrative units, including the various types of school units. In an overall centralised socio-economic system where all await policy decisions to come from above, granting of autonomy may not necessarily be a workable arrangement for the system, at least in the short run.

A step toward acquiring the necessary knowledge and experience in policy decision-making, thus placing the foundation for effective decentralisation, would be to encourage participation in planning/decision-making at all systemic levels, by all elements of the system. Participation in policy planning serves at least two goals: it increases the memory capacity of the system, enabling it to arrive at goals of a broad acceptance, and it increases the probabilities that programme implementation will be effective. A psychological factor is associated with programme implementation: the more those involved in programme implementation have participated in programme formulation, the more they are committed to the system's goals. This commitment increases their desire to ensure the best execution of the programmes. When programmes are formulated in the absence of those responsible for their implementation, these programmes are often met with suspicion, and lack of enthusiasm.

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1) Because of this lack of effective communication, due both to structural deficiencies and confused allocation of formal decision-making authority, there are high probabilities of an eventual conflict between KEME, the general Directorate of planning and the general Directorates for general (primary and secondary) and technical and vocational education. It is therefore suggested that a special study is undertaken in the Ministry of Education with a view to examining the interrelationships of those various offices and in particular the structure, role and future development of the general Directorate of planning.

Participation may take various forms depending on the particular situation; it does not necessarily imply decentralisation or increased autonomy to the various parts of the educational system. It may, however, lead smoothly to an effective decentralisation, especially when some degree of decentralisation is deemed absolutely necessary. This need, for example, has been shown to exist in Turkey because of its vast size. But it is not certain whether local authorities are prepared for responsible policy-making. Encouragement of gradual participation in major decision-making will definitely have an educative effect on those who may eventually undertake more responsibility. On the other hand, it will help the central administration by enriching the information-base on which decisions are taken.

An additional effect of increased participation in all three countries would be to provide opportunities for many elements of the system currently deprived of decision-making power, especially teachers (and here of particular importance are those with knowledge of practices in other countries) to make their views heard. It is hoped that in this way the progressive attitude of the entire educational system will be reinforced resulting eventually in innovatory policy decisions.

Reforms in all areas of an innovative nature are a recognised need in all three countries. Recent attempts at limited reforms were not always underpinned by innovations which could help the educational system overcome their inherent inertia and conservatism.

Planning at all systemic levels has, therefore, to lead in the introduction of innovative changes. For this to happen "innovative change" must become an objective of the educational system, an objective which should be used continuously as a criterion - among others - in programme formulation and selection.